



Proposal for a Project Management Office "PMO" in the Public Establishment of Housing in Syria

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Abstract

In today's rapidly changing world where change is the master of the situation, the rapid development of project management practices in the business world has become a necessity rather than an option. Organizations operate in a competitive environment and for this reason they look for what distinguishes them from their competitors, improves the success of projects, (PM offices or PMOs) gives this feature, hence, organizations have adopted PMOs in many industries including the construction industry. This study highlighted the importance of applying modern project management methodologies in Syria in order to keep pace with the global market, especially through adopting Project Management Offices (PMO) in its construction industry as (PMO) is the ideal approach in managing projects efficiently and successfully. The Public Establishment of Housing in Syria has been selected as a case study because of the importance of the housing sector in Syria, which was affected by the Syrian crisis and the recent earthquake, which led to an increase in the demand for housing. A framework has been proposed and developed for PMO implementation and operation in the Public Establishment of Housing in Syria. This proposed Project Management Office aims to improve the reality of its project management by ensuring that these projects are completed in a timely manner, within budget limits, and to the required quality standards. The methodology used in this research included two axes: the first is a study of the literature for a deep understanding of PMO, and the second is interviews with housing organization employees to identify current practices in project management in the organization and what problems they suffer from, and then suggest the appropriate type of project management office for it.

Keywords: Project Management; Project Management Methodology; "PMO" Project Management Office; PMO Implementation.

1. Introduction

Organizations around the world are facing increasing competition and project management complexity due to the need to create more products, services, and processes. According to the project management institute [1] "Project management is the application of appropriate knowledge, skills, tools and techniques to project activities in order to meet its requirements."

[2] defined the project management as it is "planning and organizing, Direction and control of company resources for a relatively short-term goal setting to complete specific goals and objectives". As the organizations faced challenges in managing several important strategic projects simultaneously, especially, in the construction sector where there are many stakeholders, processes, policies and procedures, they began to focus on professionalism in project management through the establishment of project management offices (PMOs).

Project Management Office (PMO) is an organizational unit created to assist project managers and different levels of management in implementing professional project management principles and practices, coordinating and monitoring all projects in the company, gathering best practices for project management, appropriate selection of methodologies, tools and management techniques.

Despite the short life of PMO, this administrative phenomenon has brought about a "radical" change in the way project management and practices are monitored. For this reason, the diversity of characteristics, roles and types of PMO has attracted a lot of attention in scientific research activities related to this field. Project management practices have been increasingly used in a variety of project businesses and industries as a source of corporate competitive advantage.

A large number of researchers and experts, including the Association for Project Management (APM, 2006), Project Management Institute [1] and [3] have found that setting up project management offices (PMOs) can lead to higher levels of project success, with strong and consistent project management practices. Starting in 1994, the implementation of PMOs in organizations began to increase significantly since that time [4].

2. Literature Review

It is difficult to find a unified definition for PMO due to the different work needs and functions assigned to them in different organizations. According to PMI (Project Management Institute) PMO is defined as " a management structure that standardizes project related governance processes and facilitates the sharing of resources, methodologies, tools, and techniques " [1]. [5] and [6] described a PMO as a central unit within an organization or department that oversees and improves the management of projects. Meanwhile, [7] stated that the PMO is a formal organizational structure that underpins all projects and project methodologies in an organization.

PMO is mainly used as a focal point to bridge the gap in the relationship between projects currently being implemented with senior management [3], [8], [9]. A (PMO) is referred to by several terms that vary depending on its position in the organization, its roles and maturity level. called a "project office" for low maturity levels, a project management office for medium maturity level, and a program/portfolio management office or enterprise project office for high maturity PMOs. however, then the worldwide known name of this business unit is Project Management Office.

The PMO is either an organic part of the main management structure of an organization or a partner in the organization, which is outsourced. The primary objective of the PMO is to ensure adherence to policies, standards and methodologies for project management.

The PMO reports to senior management about project activities, problems and requirements, and can be a strategic tool for making decisions that align with business objectives. Establishing a PMO contributes to more effective project management by enabling the collection of knowledge from previous projects, both successful and failed, and learning from mistakes or justifying the use of successful approaches [10].

(PMOs) were not very common at the end of the 20th century, but they have become more popular in the current century and organizations have noticed a great need for them (Dai & Wells, 2004). Typically, organizations begin to consider starting a PMO when they find the following symptoms: project delivery delays, cost overruns, Poor quality, Stakeholder dissatisfaction, Low quality reporting, Inaccurate project status tracking, Unpredictable cash flow, Untraceable scope changes, no risk management, lack of internal coordination, slow response to project implementation issues, Inefficient allocation of resources, etc. The establishment of a project management office (PMO) is one of the strategies that can be used to address such problems - it is a source of integration and stored knowledge that can be employed in managing projects more effectively.

It is important to know that setting up a PMO does not have to be seen as a short-term strategy or one that necessarily reduces operating costs immediately; As its benefits increase and become clear over time, and this is what many organizations do not understand in their respective PMO initiatives.

2.1 PMO types

Authors classified PMOs in different ways, some as broad functional groups [4], [11], whereas others attributed its importance to the role it plays developing organizational project-management maturity [12]. The PMO can take on various structures "each varying in degree and influence they have in organization" [1]. [11] found that there is great variability in the structure, roles, and perceived value of the PMO. This may be due to the diversity of projects and the jobs assigned to the PMO. Structuring a PMO in a standard way is actually difficult and experts agree that "there is no one-size-fits-all

approach". The responsibilities of the PMO can range from providing project management support functions to actually being responsible for direct management of one or more projects" [1]. so that managers are expected to implement the type of PMO that meets the organization's need.

1) Supportive PMOs: which plays an advisory role to project managers by providing best practices, training and access to information and lessons learned from other projects. This type of PMO serves as a repository for the project. The degree of control achieved here by PMO is low.

2) Controlling PMOs: providing support and asking compliance through several methods. Compliance may include adopting quality management frameworks or methodologies, using specific templates, formats and tools, or complying with governance. Here the degree of control achieved by the PMO is moderate.

3) Directives PMOs: take control of projects by managing them directly. The degree of control that PMO achieves here is high.

2.2 PMO levels

2.2.1 According to their position in the organization

The PMO can be for a specific project or program, or for some departments such as Information Technology, or it can be at the organizational level, while in big size organizations, there can be multiple PMOs at different level within organization [13], [14] categorized PMOs according to their position to: /Corporate, De-part mental or Individual/. If a PMO exists at higher levels, it may be a strategic project office, working to enable strategy that enhances organizational performance and change management capabilities.

2.2.2 According to their roles in the organization

[15], [16] identified three levels of PMO:

a) Operational level: supports projects with professional project management principles and practices. ensuring that project evaluations are conducted, expert knowledge on project management, and consistently monitoring, customer satisfaction.

b) The tactical level: integrates between multiple projects through coordination and sharing of resources, consistent quality of products and services generated by the projects, and knowledge sharing.

c) The strategic level "enterprise": where the project management office has the authority to prioritize projects aligned with the company's objectives and strategies, and effective knowledge management.

PMOs operate at any one level or may exist at all three levels concurrently, depending on their mission, scope, and approach. a PMO level reflects the level of project complexity within the organization.

2.2.3 According to their development or "level of maturity"

[17] suggested five stages of development of a PMO. [18] also categorizes them as levels of maturity for PMO. These phases show the progress that the PMO gains over time and experience. The author also claims that not all organizations need stage 5 PMO. Most organizations achieve their project management goals through stage 3 PMO. It depends on business strategies and goals. However, in order to implement any PMO phase, the company must first ensure that the minimum phases are achieved.

Stage 1 The Project Office: responsible for the successful completion of one or more projects.

Stage 2 or Basic PMO: deals with a wide range of project monitoring and control.

Stage 3 The Standard PMO: providing a complete and comprehensive PMO capability. besides working on project management oversight and control, it also supports the performance of individuals and projects in a project management environment.

Stage 4 The Advanced PMO: Its focus is on integrating business interests and goals into a project management environment. adopts common policies that can be applied to both project management processes and business processes.

Stage 5 The Center of Excellence: is a separate business unit within the organization and has responsibility for company-wide project management operations.

Many PMO organizations are set up for a rather narrow purpose, but their scope grows over the years without expressly announcing a new mission [19].

2.4 PMO roles and functions

PMO plays different roles in different organizations. The particular role of the PMO depends on the organizational requirements of such an entity [13]. Depending on its role, its organizational position, and the mission assigned to the PMO, it performs various functions, ranging from providing a standard project management methodology to be followed in all projects of the organization and coordinating resources across projects to achieve strategic business objectives [12]. The differences in the functions and roles of the PMO gave it wide flexibility in its organizational responsibilities, while many studies covered the roles and functions of a PMO, Perhaps the most well-known research on PMO functions is the empirical research conducted by [11], they identified about 27 functions and roles that PMOs can perform, they grouped the functions in 5 main groups:

- 1) Monitoring and Controlling Project Performance.
- 2) Development of Project Management Competencies and Methodologies.
- 3) Multi-Project Management.
- 4) Strategic Management.
- 5) Organizational Learning.

Not all specified functions can be implemented in all PMOs, each of them has its own performance.

2.5 PMO challenges

The establishment of a project management office does not necessarily mean the success of the organization and access to the benefits it brings. Implementing a PMO has a relatively high failure rate as organizations find it difficult to prove their added value either in reducing costs or in increasing project success [20], [21]; [22].

[23] in their study used the Delphi method and gather 13 important challenges:

- 1) Rigid corporate culture and failure to manage organizational resistance to change.
- 2) Lack of experience project managers and PMO leadership.
- 3) Lack of appropriate change management strategy.
- 4) Failure to design a PMO around a company's specific needs.
- 5) Lack of stakeholder commitment to common methodology and tools for the PMO.
- 6) Poor definition and communication of PMO goals and purpose.
- 7) Lack of full support of the senior management and various stakeholders to the PMO.
- 8) Role, authority, and responsibility of the PMO is poorly defined or understood.
- 9) Lack of defined scope and size of PMO implementation.
- 10) Failure to align PMO implementation strategy to organizational strategy.
- 11) Difficulty in evaluating the effectiveness of PMO in the organization.
- 12) Lack of training and communication on PMO implementation to all stakeholders.
- 13) Difficulty in staffing PMO with most experienced personnel.

3. Case study organization

The AEC industry in Syria faces problems such as poor management and performance, and the consequent increase in costs of change orders due to poor execution on site. All these reasons showed the need to train engineers and qualify them in engineering work and implement construction projects properly, especially in the upcoming reconstruction stages [24].

The Syrian Public Housing Establishment is a non-profit organization that focuses on providing housing projects for low-income people with reasonable prices and an appropriate payment method. It was founded in 1961 and operates independently under the Ministry of Public Works and Housing. The organization has its headquarters in Damascus and branches in all Syrian governorates. The most important Housing programs implemented by the Establishment of Housing are: (The youth housing project, The state workers' housing project, Housing for those warned of the demolition of their homes). The organization's core business is dependent on projects, which are managed by the main center in Damascus and its branches. The General Establishment of Housing has many housing projects throughout Syria, and it represents the entity that owns these projects and undertakes to implement its projects for other public or private entities. It may study and audit the project plans itself and supervise the implementation of projects in the event that the appropriate technical staff is available or undertakes to study and / Or supervision also for other parties.

New project proposals are submitted by branches to senior management for discussion, study, and economic feasibility analysis. Decisions related to contracting methods and project prioritization are made through the upper management.

3.1 Research Methodology and Data Collection

This study adopts the descriptive analytical approach, in addition to the applied approach. This will be done by studying the current situation of the organization, then collecting and analyzing data and proposing a PMO model through research and analysis then implementation. qualitative research was used in this type of research. The approach that was used to collect data is personal interviews.

3.1.1 Research tools

Literature review: examining primary and secondary sources and research globally and locally to identify the concept of the project management office and the benefits it provides, and all that is related to its types, steps to implement it, and the factors of its decline or failure.

Data collection tools: There are five main research strategies for research methods which are: (case studies, field experiments, surveys, archival methods, and historical analysis).

In this type of research about the PMO and since this type of research does not need to collect laboratory or documented data. The two most appropriate strategies here are case studies and surveys. Since the focus of this thesis is on the case study, which is the Public Housing Establishment, the survey strategy is not really useful at this stage for many reasons, including: Inaccurate responses, as some people do not possess real facts and experience. Some questions require detailed answers from people who are difficult to include in the questionnaire. Some people are not familiar with the concept of PMO, and this may lead to inaccurate responses. As stated by (Saunders, 2009) interviews are a research tactic, which involves choosing tools or a method for collecting actual data. The researcher chooses to make interviews to collect the data which needed, where interviews provide deeper understanding of the work environment. It's a valuable and flexible tool, gives rich data, it provides the interviewer's personal perspective, human connection with them, and new insights.

The sample were selected from different levels within Technical Affairs Department in the public Establishment with the aim of representing different perspectives and experiences with an emphasis on those with an understanding of project management, aiming to help in achieving the research objectives& define the functions and roles of the Project Management Office (PMO).

Face-to-Face interviews were conducted with fifteen employees in the Housing Establishment for a more comprehensive discussion. And to build on their expertise and experience. Highlighting areas of weakness in the accomplishment of tasks, shedding some clarity on necessary technical and critical processes. And identify processes that could benefit from support by proposing the PMO to not only assist with tasks, but also support the project. A list of questions was developed by the researcher to help manage the structure and flow of the interviews as well as understand the meaning of the different concepts of PMO. The questions were related to the Establishment in general and about projects and the mechanism of work and management in it with regard to scheduling, project requests, quality, budgeting, training and challenges,

The answers helped identify the problems that Housing Establishment face. Through this friendly discussion information have been gathered about the current state of the organization, their views on the problems they have to deal with and on the changes, they think are necessary and beneficial. The data obtained through the literature, interviews and the observation were analyzed, in order to compare them with the theoretical background.

3.1.2 Results analysis

The Public Corporation for Housing faces great challenges not only with regard to its operational performance but also the restrictions and requirements imposed by the current economic situation in the country, and its reflection of the state's economic situation on the Housing Cooperation projects in terms of price differences, the unavailability of raw materials and equipment, and the lack of funding required for the Cooperation's projects but lack of planning increased these effects. On the other hand, and it was found that there is no unified methodology in project management, and most of the Corporation's projects are currently lagging behind in terms of time and exceeding the estimated cost. Effective project implementation process needs to be improved, skill resources allocated are average and training is needed. The Housing Corporation has in recent years made partial changes that have only strengthened certain areas. For this reason, it is obliged to make adjustments and changes in the way it operates. The required changes were identified through face-to-face interviews with some of its employees.

The most important problems related to the Cooperation's projects are:

1. The problems of land acquisition in terms of complex procedures, and the lack of cooperation of other parties to facilitate the work. This leads to delays in projects and an increase in the total cost, as sometimes there is lack in planning where the project is decided and announced before the completion of these procedures.
2. The special conditions and criteria set in the preparation of the project studies are not sufficient, and there is a rupture in the relationship between the studying body and the executing and supervising body. This can lead to misunderstandings and can lead to errors during the implementation of projects.
3. The special conditions and criteria set for selecting the executing agency (whether it is a public or a private one) are insufficient and accurate.
4. The management of the organization's communications is not at an adequate level between the supervising authority and the directors of the institution, as well as there is a clear routine in the movement of reports that lead to delays in decision-making and financial losses resulting from price differences, and time and technical delays that impede the progress of the project.
5. The interviews showed low levels of planning, monitoring and oversight.
6. Weak coordination between different project parties.
7. The Housing Corporation does not have an appropriate risk management system. This can lead to unexpected problems during the implementation of projects.
8. The organization lacks experts and engineers specialized in project management and technicians as a result of low salaries that do not encourage engagement in government jobs, which has led to the resignation of many employees and job turnover.
9. The Public Corporation for Housing does not have a quality management system.
10. The lack of specialized training courses, and the lack of some necessary equipment for communication, especially in the establishment's branches.
11. The software used is still simple, such as Excel and Word, and most transactions and approved charts are still on paper.
12. Not recognizing individual initiatives as these initiatives are not appreciated enough, this can lead to discouragement of motivation among employees and can lead to a lack of innovation, and rewards and incentives are very few and not motivating.
13. Lessons learned are not recorded for future reference.

3.2 The role of the project management office in the Public Establishment of Housing

With the growth and implementation of more projects in the Public Corporation for Housing in all governorates, it has become difficult to manage them effectively. This is where the Project Management Office (PMO) comes in.

Based on the literature review, interview data review, and the problems faced by the housing organization, the project management office is the ideal method that will not only monitor and run projects, but will also help the organization in overcoming most of the above-mentioned problems, especially in terms of reporting traffic and reducing project execution time. Save expenses and most importantly monitor the entire organization, its progress and performance. It is important to consider the type of PMO and the level of authority given to it.

3.2.1 Proposed PMO location and authority

Based on the organizational chart and the need for a PMO in the Public Corporation for Housing, controlling PMO is proposed as a central office within the Technical Affairs Department in the Housing Corporation Center headed by the Assistant General Manager for Technical Affairs, since "Technical Affairs" is directly responsible for all the Housing Corporation projects. This central office receives data from projects through other sub-project management offices in each branch and program within the Corporation's branches in the governorates, This PMO will act as a central controller responsible for the project planning functions, coordinating operations starting from the early stages in the project and managing the project in accordance with the project management methodologies. Coordination of activities and movement of reports, provision of templates and support, best practices, training, data collection and evaluation, and this data is key to the ability to provide information, progress reports, and lessons learned to improve the methodology of future projects. A PMO can also help value individual initiatives and provide a platform for lessons learned.

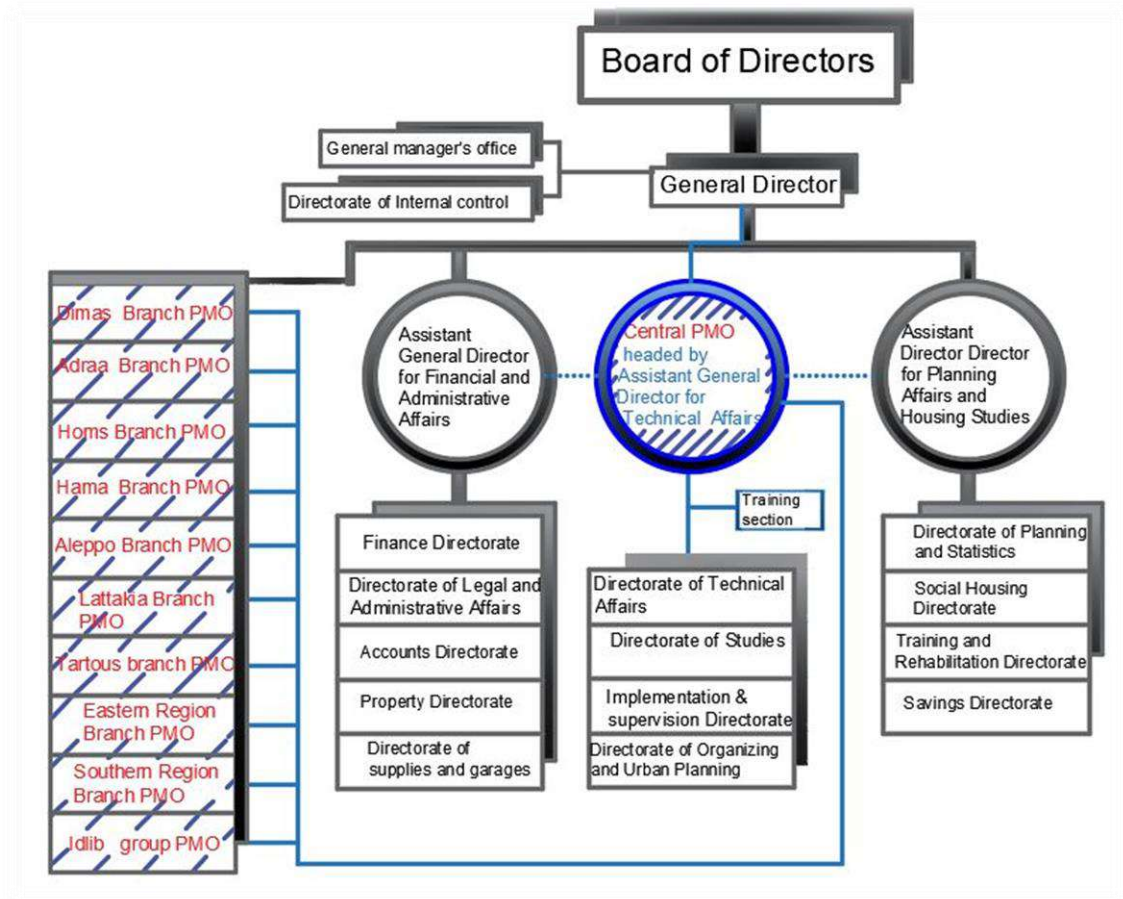


Figure 1: Proposed PMO Location in the Public Establishment of Housing.

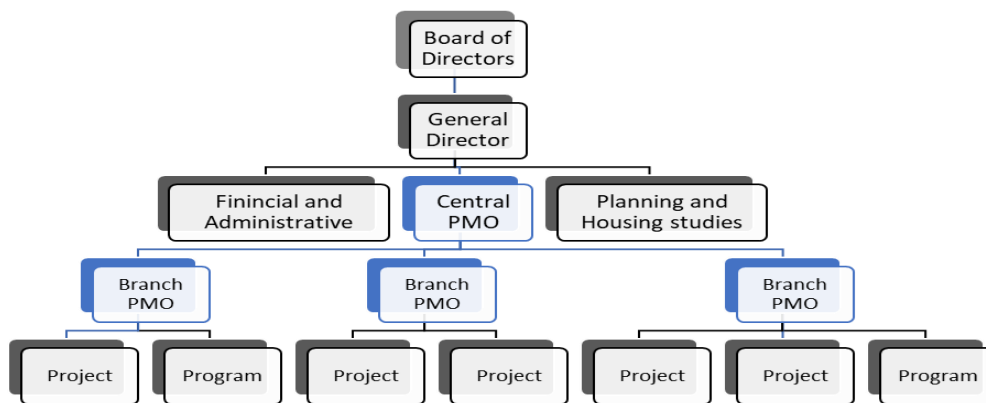


Figure 2: Proposed PMO

3.2.2 Proposed responsibilities and functions of PMO

The project management office can start taking on the most priority tasks at the beginning of its work and gradually develop and expand its function to carry out all the tasks assigned to it. This PMO can support many functions in a housing organization including:

- 1) **Planning, Control and Supervision:** The Project Management Office (PMO) provides planning and central guidance to monitor the organization’s projects at all stages of the project starting “from the project proposal and the economic feasibility study and also the selection of the optimal economic solution and the announcements of tenders and contracts, supervision and control.

- 2) **Setting standards and procedures:** By developing the procedures followed in accordance with the correct management methodologies and setting the necessary standards and models for the successful management of projects. This ensures that the project follows best practices and is on track, unify work methods, tools, techniques and templates.
- 3) **Communications and reporting movement management:** The Project Management Office (PMO) can solve communication problems by establishing effective communication channels between project managers and senior management, and reporting on the status of implemented projects in order to contribute to the successful completion. Another responsibility of the PMO is to prepare reports on a weekly, fortnightly or monthly basis as needed and to submit them to the management after completion, and the PMO will be responsible for scheduling these meetings with senior management and all stakeholders, resolving routine issues in the movement of reports and thus reducing delays as this helps to keep everyone informed and working on the same goals and speeds up decision-making, which facilitates the progress of work on the project easily.
- 4) **Coordination and Problem Solving:** The PMO coordinates between different parties in the project, developing solutions to problems that hinder projects or reduce progress and quality is another key function of the PMO. This ensures that the project continues on its right track and achieves its objectives, as well as following up on the disbursement of financial statements and contractors' dues.
- 5) **Performance Evaluation:** The Project Management Office (PMO) evaluates performance in branches, groups, and projects. This helps identify areas where improvements can be made and ensures that everyone is working towards the same goals.
- 6) **Lessons Learned and information Center:** The project management office is the reference point and is responsible for verifying the availability of the previously specified time for information, managing information, systems, as well as developing the project management program, and digital transformation. It also provides a platform for recording lessons learned for future use, so that this information serves project managers and new employees in following up on work clearly and smoothly without confusion.
- 7) **Support, guidance and training:** Since the interviewers provided low rates of support, the PMO should direct and instruct the organization's staff for the proper implementation of the above procedures and practices, It should also be responsible for planning and implementing project management training following a defined method in order to deliver the training successfully, ensuring that all those responsible for carrying out the work doing their tasks in the correct manner, through training, workshops. Supporting them, encourages their initiatives, suggests rewards and incentives based on employees' efforts, knowing their needs and weaknesses. This helps motivate them and ensures that everyone is working toward the same goals.
- 8) **Risk and change Management:** The Project Management Office (PMO) will establish an appropriate change and risk management system to mitigate risks associated with projects. And in the case of changes and risks that the project management team cannot handle. The PMO must collect all the necessary information and report it to the line managers, who will decide the situation.
- 9) **Quality management and assurance:** The PMO is responsible for applying quality assurance procedures, assessing the quality of the information published in the forms and verifying compliance with standards and directives. Improving the quality assurance mechanism for executing work on site by applying quality assurance procedures in projects is critical. The responsibility of the authority lies Supervisory Responsibility for monitoring and implementing the quality program to ensure quality control of materials through samples This ensures that the project is completed to the required standard.
- 10) **Define its functional methodology and define its operating manual.**

3.3 PMO implementation steps in the Housing Establishment

The PMO implementation life cycle consists of five phases: initiation, planning, implementation, monitoring and control, maintenance and transition as mentioned in [25]. The establishment of a project management office (PMO) within any organization in the public sector may carry the solution to the problem of implementing projects within the strategic plan of the organization, and minimizing failed projects, Where the need to exercise greater and more efficient control arises when many projects are running simultaneously within the organization, the establishment of a project management office becomes a necessity. The PMO helps both project managers and host organizations understand and apply professional practices in managing their projects [23]. Once the establishment of a PMO is approved, the organization must take serious care of how it will start, which

should be pre-planned through these questions:(What functions should the project management office perform? Who are the employees who will be selected to work in this office? Where will the PMO be located, as a single department or in an associated unit?). Given the complexity of the PMO functions, the host organization should follow “specific” training and development of the skills of its staff, with the aim of strengthening the PMO management to achieve project objectives that are aligned with the organization’s strategy and vision.

3.3.1 Steps to establish PMO in Housing Establishment

Figure 3 shows the detailed steps required to establish a project management office within the Public Establishment of Housing, after reviewing the frameworks set by [20], [26], [8].

1. Analyze the organization operations & management status: Focus first on understanding the organization's vision, strategic goals, business objectives, culture and department, Interconnections and relationships so that the PMO can set its path to implement and facilitate effective project management methodologies and align project management methodologies and processes with strategic objectives, and ensure vital senior management support for those policies and procedures.

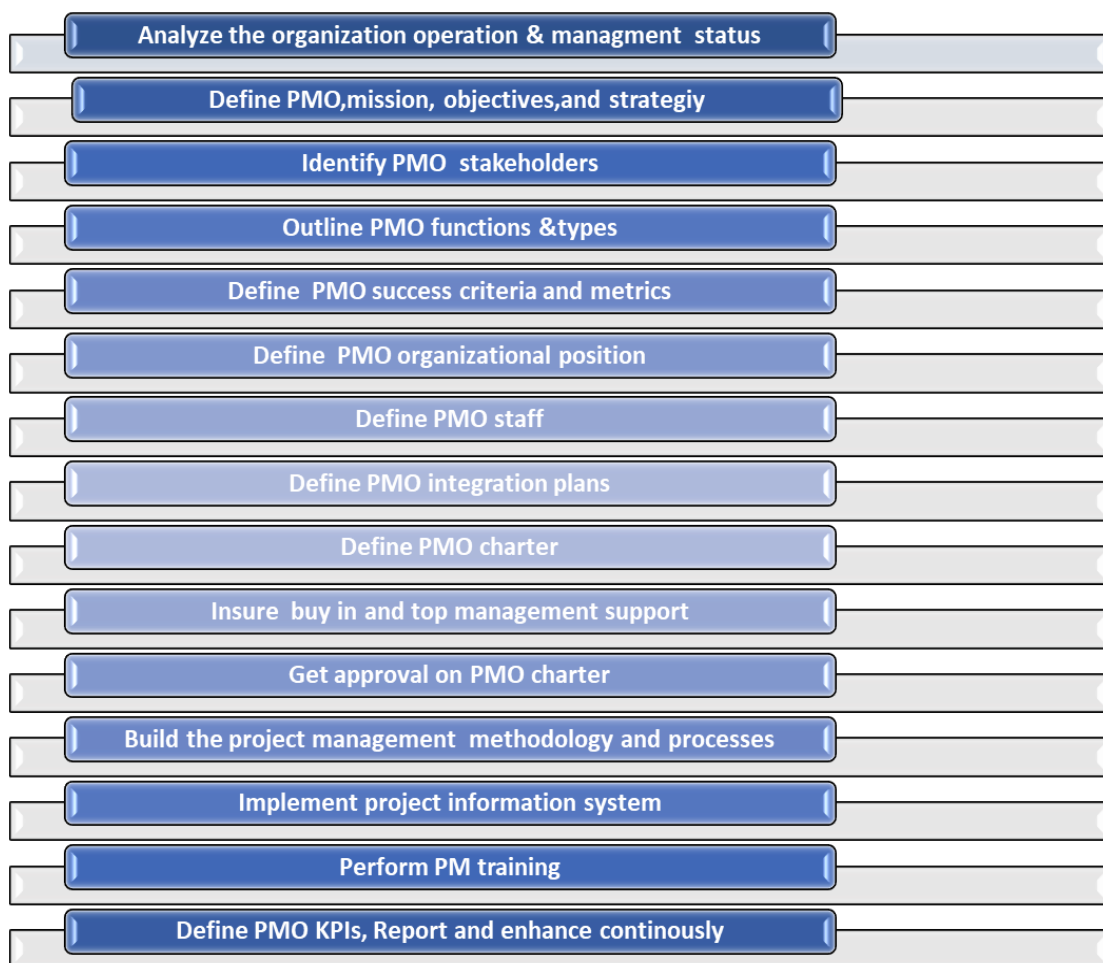


Figure 3: steps to establish PMO in housing Establishment.

2. Define PMO mission, objectives, and strategy: An effective PMO mission statement clearly defines the reason for the PMO's existence.

Objectives: The PMO should focus on short-term tactical goals and long-term strategic goals. At the beginning of PMO work, he should plan simple and easy objectives -to-achieve goals.

Short-term goals : should be achievable within relatively short periods of time to ensure success and increase PMO support in the organization and realize its value in the future [20].

Strategy: focuses on how to achieve the long-term goals of the PMO, the implementing of successful organizational project management practices, the reason for establishing a PMO, and the functions and services it should provide to the organization, and gaps that must be addressed.

3. Identify PMO stakeholders: The Housing Establishment has external stakeholders have different strategies, interests, and goals. Stakeholders such as government departments, building contractors, engineering offices, financial institutions and end users. While all managers and employees are internal stakeholders.
4. managing stakeholder requirements effectively must be one of the primary goals of the PMO. Identifying and understanding the influence and relationships with external and internal stakeholders is very important in planning the development of a PMO. In the previous paragraphs, the tasks required of the Proposed PMO were discussed in detail
5. Outline PMO functions & types: The success of the PMO is related to the selection of the functions that the PMO must perform and their relevance to the organization's process and goals [27] as cited by [28]. In the design of the proposed PMO, there is no attempt to define a specific type of PMO, but the PMO will be responsible for managing the life cycle of projects and supporting their success in delivering within the specified time, budget, and expected quality.
6. Define PMO Success Criteria and Metrics: which measures the performance of the PMO. The PMO sponsor and senior executives should participate when metrics are defined, along with reporting on mechanism, tools, and iteration. According to the PMI Pulse of the Profession survey (2013), the majority of PMOs are measured by: (Project delivery within schedule and/or cost, customer satisfaction ratings, Stakeholder feedback assessments, project owner feedback ratings, performance against financial targets, Formal assessments of project managers and PMO staff).
7. Define PMO organizational position: The project management office (PMO) organizational structure is designed to be effective in managing the project life cycle with its various stages and stakeholders.
8. Define PMO staff: The PMO employs a few people as executive staff, in addition to project managers who may be employed within and reporting to the PMO, depending on the PMO model chosen. Each of the positions that the PMO is designed to provide needs to be filled with the appropriate number of staff with the appropriate skills required. The number of staff in a central PMO is about 12 staff members while each branch PMO may include 2-3 staff members.
9. Define PMO integration plans: Channels of communication and interaction with internal and external stakeholders must be developed and implemented during the PMO process. To avoid resistance, PMO must offered in a collaborative format.
10. Define PMO charter: It should contain the PMO's vision, mission, goals, success criteria, scope, timeframe, budget, stakeholders, and expected challenges. This document is very important because it defines what the PMO is to be created within the organization. Once the PMO charter is complete, it is important to obtain clear approval and support from senior management (board members, chairman and CEO), otherwise the success of the PMO will not be guaranteed. All the literature stresses the importance of the approval and support of senior management.
11. Insure buy-in and top management support: All the literature stresses the importance of the approval and support of senior management.
12. Get approval on PMO charter: Once the PMO charter is complete, it is important to obtain clear approval and support from senior management (board members, chairman and CEO), otherwise the success of the PMO will not be guaranteed. Once approved by stakeholders, the PMO implementation process begins.
13. Build the project management methodology and processes: Organizations should focus on establishing consistent and repeatable processes for project scheduling, project tracking, and overall project supervision and support [18]. Methodology, which is the process of guiding the performance of a project from concept to completion, can be accomplished by presenting a series of steps to be followed. This process should address the groups of five processes, initiating, planning, executing, controlling and closing. The introduction of project management practices is gradual, starting with those that have the greatest impact on project business success [17].
14. Implement project information system: There are a variety of software tools for many related purposes. Other things such as creating an intranet website for the PMO should also be considered. It is important to know that not only once the tool is deployed will the PMO be up and running and start executing the processes. The tool is a supportive aid for process automation, but all other components of the PMO must be set up so that the benefit can be realized from the tool. [8].

15. Perform PM training: Given that the Project Management Office (PMO) is a complex entity within a competitive environment, it is necessary to have continuous training for its staff In order to help employees become more familiar with the principles and standards of project management and prepare them for the resistance shown by the rest of the employees towards PMO, this may be through conducting workshops in which the senior management participates along with the employees who will participate in the discussions and their duties.
16. Define PMO KPIs, report and enhance continuously: Some of the key performance indicators or performance metrics for the proposed PMO are :(Deliver projects within the planned schedule, earned value, Accurate forecasting of cash flows, Timely availability of updated project information, stakeholder satisfaction, Turning risks into opportunities, End Users Feedback).
To ensure continued success of PMO, it must be focused on continuous improvement and monitoring, this process offers the opportunity to build a culture Organization based on project management best practices

3.4 PMO Execution

After developing the methodology, the project management office must start applying this methodology through it, and conduct several workshops for project managers and teams and address the following issues:

- a. Communication issue& effectiveness PMO Reports.
- b. Lack of skills and knowledge in project management.
- c. Defining regular meetings with project owners and all communication tools as follows: (face to face, Emails, phone).
- d. Conduct training on project management principles and project management methodology.
- e. Develop specific PMO software to improve reporting quality, enhance communication and integrate the entire PMO system together.
- f. Improvements and Enhancements.

Once PMO is in place and executed, it must track, monitor, report and improve. PMO failure status begins when the value of the PMO is questioned due to the presence of incomplete projects that have not been delivered Within specified budget, time and output targets.

one of the main functions expected of the PMO is to provide joint aggregated reporting on the status of all projects and portfolios of the organization. It is important to ensure that all relevant stakeholders and senior managers are aware and up-to-date on PMO status, progress, and obstacles.

Performance reports can be done weekly, monthly, or quarterly, depending on the type of PMO and stakeholders. In the Establishment of Housing the proposed central PMO may report on performance against financial targets monthly, while the branch PMOs may report on project delivery against schedule on a weekly basis.

3.5 Critical success factors for a PMO in Housing Establishment

Creating a PMO is a big change and like any change, there is a lot of potential for resistance. Through the last two questions of the interview, I understood that the majority of those who were questioned were positive for PMO accreditation, of course there were negative or neutral views, appropriate participation with these can help them see the benefits of this work and overcome their fears and change their view to be positive for such adoption. As mentioned earlier in our literature review, in order to create a successful PMO and defeat resistance, there are also some critical success factors that need to be taken into consideration. For the Public Establishment of Housing, there are four critical success factors, based on the aforementioned literature:

- a. Support from the top management of the organization and the organization and establishment of the project management office.
- b. The line managers shall participate and support every effort or direction of the PMO and organize meetings and workshops that clarify and confirm how to handle the new office and its purpose in order to ensure the smooth and continuous operation of the PMO.
- c. Clearly define the roles and responsibilities of the PMO in a way that all stakeholders understand.
- d. Effective implementation of methodologies and best practices for managing a PMO project.
- e. Focus on making quick wins so as to prove the PMO value.
- f. it is recommended to carry it out step by step in the establishment of the PMO and start first with the important tasks.
- g. Choose PMO staff carefully.

4. PMO & BIM

Building Information Modeling (BIM) is a technology that relies on exchanging digital models of a construction project to manage all phases of a building's life cycle [29].

The AEC industry is the mainstay of the economy in many countries [30]. The application of BIM in developed countries has become a trend [31]. Governments and the AEC industry around the world have paid great attention to the application of Building Information Modelling in their projects due to the advantages it offers [32] [33]. BIM environment is effectively reconciling all interests and endeavors of all stakeholders through the various stages of the project in order to reach a functional, developed and innovative product that meets the demands All parties and objectives of the project [34]. BIM introduces new tools, data, and concepts to the traditional construction process, resulting in financial enhancements, reduced losses, time savings, and ultimately improved project quality [35], Also, BIM improves the performance and efficiency of projects [30] [36] [37].

Engineering work in Syria still uses traditional methods in which changes and conflicts abound, which leads to a change or modification in the time, cost and objectives of projects [38]. short design duration and poor design cause a lot of change orders, traditional bidding system with selection criterion for low-priced offers as criteria, increasing complexity of buildings and projects in general, the multiplicity of project parties and stakeholders, and the entry of new parties who also influence the project, delayed project supplies, lack of coordination between subcontractors, and waste of project resources due to re-work or to correct design defects. The key to resolving this is the transition to a BIM system, which aims to have clear design information as the common source of knowledge [39]. BIM applications are interactive and dynamic compared to traditional study methods, that Increase the accuracy of estimating quantities on projects with BIM applications [40].

Given the current conditions of the construction industry in Syria, BIM can be applied in stages, especially in the reconstruction stage, such as in the design stage, and that requires engineering effort and great cooperation between all stakeholders [39]. (BIM) technology has proven its ability worldwide to solve problems in the Architectural, Engineering and Construction (AEC) industry such as those faced by construction projects in Syria [41]. AEC in Syria is witnessing a shift from CAD to BIM, so the government, the concerned companies, and individual expertise must encourage this in order to keep pace with the continuous development in the world of technology [42].

PMO (Project Management Office) & BIM (Building Information Modelling) are two different concepts but serve the same orientation. The PMO is responsible for managing and supervising projects from inception to completion ensuring they are delivered on time, within budget and meet the required quality standards, while BIM is the digital representation of the physical and functional characteristics of a building, which is used in all phases of construction, from design to construction and maintenance. The relationship between the two concepts is complementary, as Building Information Modelling (BIM) can be used to improve project management efficiency by providing accurate data about building design, construction progress and maintenance needs. Working in a BIM environment allows accurate cost and time estimates to be calculated even at the design stage. Also, BIM can help PMO identify expected risks before they occur by simulating different scenarios and analysing the impact of changes in real time. On the other hand, the presence of an effective project management office "PMO" facilitates and supports a smooth transition in the organization in applying BIM effectively. Briefly, PMO and BIM can work together increasing the efficiency of project

5. Conclusion

In a country like Syria that still waking up from the burden of crises and the economic problems resulting from it, and suffers from a lack of implementation of project management methodologies, studying the methods that enable the implementation of PMO should start as soon as possible.

In conclusion, I believe that the most appropriate solution for the organization is the establishment of a project management office. Based on a review of the literature and the results of the interviews suggested above the mission, objectives, responsibilities and location of the PMO. Critical success factors are outlined. It is my belief that if the organization will follow these recommendations, it will successfully establish and implement the PMO.

Of course, the PMO is not a "magic wand" that will solve all the problems associated with project management in the General Establishment for Housing and Syrian companies in general, "but it will

provide a unified methodology (at the level of the organization) according to" the opinion of many authors, and this will greatly facilitate and improve project management and create a competitive advantage for its organizations.

6. For Future Research:

It is also recommended a study to determine the impact of the establishment of the Project Management Office on the performance of the Public Housing Corporation after 3-5 years of its establishment, so that the study compares the current situation in the institution and the future situation in order to evaluate the advantages and disadvantages of its establishment.

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