

A Study on The Project Management Practices for PMO and Public Sector – A Systematic Review

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Abstract— Most organizations have failed in completing their projects due to different factors such as funds, planning, time, manpower and others factor. Various frameworks or guidelines are practiced by organizations to strive against the existing challenges. Project management office (PMO) can be defined as an emerging concept that defines and maintains the standards of project management within an organization. In the UAE, even though most of the public sectors implement the project management strategy, the majority of organizations are still following the traditional practices. The main objective of this paper is to analyze and provide a review of the literature on framework for establishing project management office practices.

keywords—PMO, UAE, public sectors, framework.

1. INTRODUCTION

The literature review includes critical evaluation of the literature that is related to the specific research topic. The main challenges of the researcher are to select the relevant literature from a larger pool of data. This paper aims to analyse and explore the literature related to the framework of PMO and impact on the organization productivity by using the systematic review.

In today's competitive market, organizations strive to not only accomplish the projects on time but also to consider the satisfaction of the stakeholders. The impulse for introducing a separate entity or departments for the project management within the organization is often a desire to improve the management of projects and to reduce the projects that failed to fill the ambitions of customers and stakeholders due to budget overruns or unacceptable delays. The existence of a PMO has become necessary for organizations in both the public and private sectors whose core activities are project-based. Because of this, project management unit can interact actively in the host organization with a project and a business environment, it is responsible for improving the project management capabilities of the host organization.

However, nowadays, the benefits of an independent project management entity are utilized by both project based and non-project based organizations. The wide acceptance and the impact of this office on the success factors of the projects contribute to this. It has been noticed that most of the project failures are due to the lack of co-ordination and proper planning. Requirement analysis, resource allocation, work plan, implementation and corrective actions are the basic steps of a project implementation. Lack of awareness, training, alignment and accountability are the considered main challenges that the PMO establishment in UAE is facing which will be discussed in detail in the coming sections. The failure in risk forecasting

and management also create a barrier for effective project implementation. Generally speaking, if all these processes are executed in an appropriate way, the success rate of the project can elevate to a high extend. In UAE, the concept of independent office for projects has been established earlier but the responsibilities were not properly structured. It has been noticed that there is a lack of vast literature based on the PMO in the public sectors in UAE.

Even though there are many project management frameworks practicing in UAE, the PMO has been a proven entity to overcome such project failure issues globally. The establishment of PMO within a public organization is seenn as a critical solution to the failed projects and an enhancement to the completion of projects within the strategic plan of the organization. However, it is important to comprehend and understand if these areas mentioned in this study were drastically investigated to address the PMO’s lack of experiences. Also, other areas that needed to receive the necessary attention of PMO’s, failures of PMO’s in the aspects are to be noted and addressed.

The recent vigorous expansion in infrastructure, core public utilities and related services has instigated project-based public organizations in the UAE. This emergence of a new form of public organization has led to the adoption of advanced management approaches, which has prompted an intensive study of the practices of strategic management in UAE public sector organizations as they carry out their projects.

However, there have been limited number of works that systematically study on the PMO frameworks development regarding of these issues. Gaining top performance by using PMO becomes one of the most urgent issues to cultivate the good working system culture to gain a good understanding of their communities

Therefore, in this study, the public sectors from different background will be evaluated framework of PMO in management. It would add value in establishing better understanding of PMO in management practice that would strengthen the government initiative in shaping the public sectors specifically in Abu Dhabi, UAE.

This paper is organized into four main sections. After introduction, the second of the research methodology. The third section presents the finding and discussion section. Finally, conclusion is presented in the fourth section.

2. RESEARCH METHODOLOGY

We implemented a review protocol based on Kitchenham's systematic analysis method to check for the related studies. The basic phases of are classified by three planning, executing, and reporting stages. We created research questions in the planning process, as in Table 1. These research questions are designed to address the organization issues as aforementioned.

Table 1: Research questions and research objectives

RQ1	What are the related works on project management practice for PMO in organization?
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The review protocol activities are as shown in Figure 1. The purpose of adopting the review protocol is to ensure that all the relevant studies are captured for the analysis. The empirical studies were conducted by using search engines, namely, IEEE Xplore, ScienceDirect, Springer, Scopus, Google Scholar, and ACM Digital Library. The search keywords were used for different relevant topics to ensure that all related papers are included. (Project Management OR PMO) AND (Dimension OR Factors OR Element) AND (Private

Organization OR Public Organization) AND (Approach OR Method OR Framework OR Model) AND (UAE) to collect all the relevant papers.

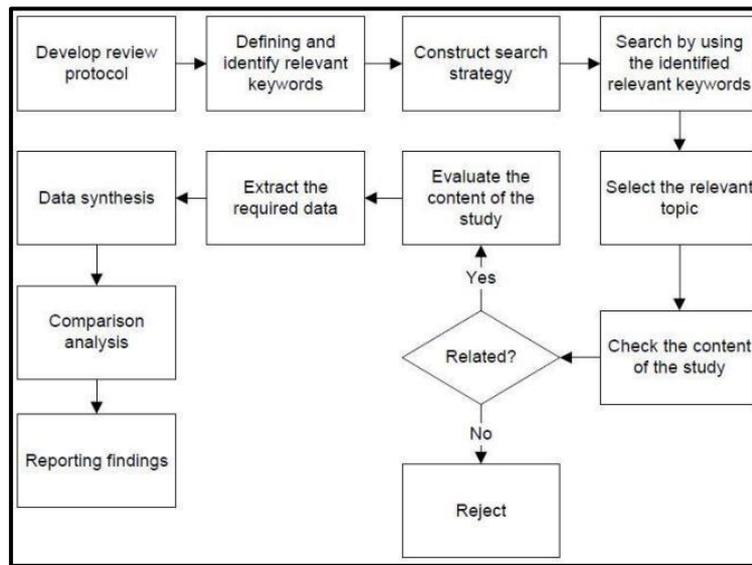


Figure 1: Review protocol process

We applied inclusion and exclusion criteria as outlined in Table 2 to collect relevant studies. By analyzing the title, abstract, and conclusion of the primary identified studies, we eliminated any unrelated studies. After applying these steps, 51 studies were retained. Furthermore, we accessed and evaluated the articles by checking the content of the articles. Irrelevant studies were rejected at this stage and the relevant studies will be analyzed. Out of 51 articles, there are only 20 articles were considered for further review. The next phase was conducting the comparison analysis and reporting the analysis of the related works.

Table 2: Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
Papers focusing on project management practice, PMO and Public organization.	Studies not related to the research questions
Papers focusing on frameworks, models, methods and approach used in project management practices for PMO.	Studies unclear

3. FINDING AND DISCUSSION

The study has discovered that 20 papers published between 2010 and 2019 that discussed on the topic of project management practices for PMO and public organization. For each of the papers, we identified the existing works on framework, model, technique and method for PMO in public organization followed by the type of contribution, and the domain of application of their approach. The results are presented in Table 3 and Table 4.

Table 3: Related Works in Project Management Practices For PMO

Source	Model/ Framework	Approach Tool	Method/Technique	Domain
Linde and Steyn (2016)			Quantitative	Organization
Al Ameri (2016)	/	/	Survey	Organization
Salameh (2014)	Review paper			Organization
Kumar and Priyadarshini (2016)	/	/	/	Organization
Ajmal et al. (2017)	Review paper for the successful implementation of PMO			Organization in UAE
Clifton (2015)	/			Organization
Linde and Steyn (2016)		/	/	
Kiani, Yousefi, Nouri, Khadivid, and Mehrabanfar (2015)			Quantitative analysis on effects of PMO have on the successful of the project.	Organization
Munyoki and Njeru (2014)			Qualitative approach related on the factor of PMO operation	Organization
Bolles and Hubbard (2015)	Framework Project Business Management			Organization
Hubbard and Dolles (2015)	/	/		Organization
Monteiro, Santos, and Varajao (2016)	/	/	Approach: PMCoE	Organization
Garfein (2005)	/	/		

The studies are summarized in Table 3. The project management practice has proven to be a reliable model that explains practice in organization. Also, it is found that PMO is an important and there still no study cater on this particular research. In recent years, there have been a lot of research concerning project management practice mostly in organization public there have limited study discuss project management practice in public organization especially for United Arab Emirates (UAE). However, smart government is the next level of government in which variety of applications of newly rising technology and innovating activities for project management practies. In this respect, research for understanding project management practice for PMO in public organization is still very limited finding.

RELATED WORKS OF PROJECT MANAGEMENT PRACTICE IN ORGANIZATION

Numerous researches have been undertaken to establish an effective paradigm for project management practices. For instance, the research by Kiani, Yousefi, Nouri, Khadivid and Mehrabanfar (2015) often brings into questions the influence of PMOs on the performance of projects. Throughout their studies, the researchers concentrated on completely different aspects of the attributes and operations of the PMOs. They concentrate on the mere nature of a PMO and aims to equate the performance rate of certain organisations that have one or those who do not. They observed that there is a huge positive association between the existence of a PMO and the effects of the project variables as well as learning. Any of these had a Pearson correlation coefficient of 0.75 and 0.788 respectively. The second primary aspect of the PMO is the functions allocated to it. The question is how the tasks delegated to the PMO directly affect the overall performance rate of the projects the organization is working on. Any main functions, some of which were discussed previously in this study, have been taken into consideration in this analysis.

Munyoki and Njeru (2014) also noted that the reporting line is an important factor when learning regarding PMO operations. The first finding is that those PMOs which report to the medium-level management of the company contribute to a high rate of performance in the projects carried out. Involvement in strategic preparation is another aspect of the PMO operations studied in the study. The problem is that participation in strategic planning has had an effect on the progress rate of the programs. The PMOs that are interested with the organization's strategic planning.

Salameh (2014), also, was establishing several measures that should be taken in the phase of setting up a PMO. Interestingly, Salameh figures out that, in the very first case, the development of the PMO should be considered as a mission of its own. To this extent, the aspects of expense, scheduling and complexity of the PMO are vital factors for management in the course of setting up the whole project. The researcher points out whether the stipulation of a charter, the plan to be used to foster communication, the transitional engagements and the actual implementation must be made for the successful establishment of the PMO unit. Salameh proposes something termed the high-level phases of the creation of the PMO. The figure below shows the high-level phases shown by the Salameh (2014).

Bolles and Hubbard (2015) designed a framework defined as the Project Organizational structure of the Enterprise. However, the use of the term Project Business Management does not imply that the framework refers to entities that undertake business; indeed, it emphasizes on having a framework that can be utilized to handle project-related businesses by any organization in question. As such, this framework is assumed to be suitable for research of this specific review, as the research focuses on public organizations that aim to deliver government resources as compared to private sector commitments. Essentially, it reflects on the common dimensions of projects that are important to all organizations, independently of their role and the essence of the individuals they represent

Project Business Management	PBM Organization						Operations Business Management	OBM Organization					
PBM Model <i>Project Management</i> Integration & Harmonization	Governance	Methodology	Capability	Planning	Execution	Sustainability	OBM Model <i>Operations Management</i> Integration & Harmonization	Governance	Methodology	Capability	Planning	Execution	Sustainability
	Organizational PBM							Organizational Management					
	Management of Strategies							Management of Strategies					
	Management of Objectives							Management of Objectives					
	Project-Portfolio Management							Management of Portfolios					
	Project-Program Management							Management of Programs					
	Project Management							Management of Projects					
	Management of Resources							Management of Resources					
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Sustainability						Sustainability							

Figure 2: Representation of PBM Framework, Source: (Bolles & Hubbard, 2015)

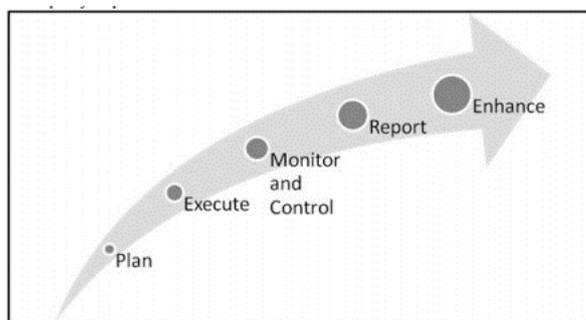


Figure 3: Implementation stages of PMO, Source: (Salameh, 2014)

Hubbard and Dolles proposed seven models of PMO such as Enterprise PMO, Division PMO, Business Unit PMO, Project PMO, Project Office, Project Support Organization and Project Management Centre of Excellence (PMCoE). This can be represented as a pyramid and the position states the roles and responsibilities of the PMO. According to them, Enterprise PMO is a supreme authority for strategic planning, project selection and prioritization who reports to the CEO. Next level PMO, Division PMO reports to the Enterprise PMO and do the tactical planning and project-portfolio management. Business unit PMO conducts the operations master planning and project/program management. Project PMO manages a major project from initiation to the closing. The Project Office shall submit to the Project manager and manage the documents and can coordinate the project. Project support Organization informs on the success and performance of multi-projects and performs administrative activities. While PMCoE doesn't really manage projects, it establishes guidelines, procedures and competencies for project management (Hubbard & Dolles, 2015). This typology does not specifically indicate how to choose the appropriate model according to the specifications.

Monteiro, Santos, and Varajao (2016) analyze the typology provided by Englund, Graham, and Dinsmore, which stated that the office could follow three specific designs depending on the complexity of the functions allocated to the unit once it has been created. In this particular typology, the PMO can either provide support, foster excellence in terms of how the organization manages its projects, or run the project in full authority whereby the office is known as a Project Support Office, Project Management Centre of Excellence, or

Project Management Office respectively. A PMO who adopts the help model functions as an in-house consultant, while one who takes the concept of a centre of excellence aims to explore innovative approaches, train personnel and ensure the expectations are adhered to. As a full-level Project Management Division, the entity has the authority to appoint project managers, prioritize assignments according to preference, and ensuring that all tasks are consistent with the wider strategy, mandate and intent of the company as a whole. In addition, a near review reveals that although the terminology varies, the functions assigned to such models are essentially identical.

Garfein has suggested four different PMO models. The first model of this typology is defined as the Project Office and is essentially responsible for the supervision of project managers. It also includes a model known as the standard PMO, which is required to specify the requirements used in the evaluation phase for the projects to be selected and to maintain reports on the overall success of the project as it progresses. This typology further defines a concept known as the mature typology, where the entity ensures that the projects are compatible with the competitive underpinnings of the business under review. The last model of this typology is the enterprise PMO as stipulated in the previous typology (Garfein, 2005).

4. CONCLUSION

This paper provides a view that is based on a literature review of the Project Management Office (PMO) and reflects on its effect on the public sector of the UAE. Since PMO is a wide-ranging topic, it is a difficult challenge to reflect on the related information from a large pool of literature. This research followed the requirements for evaluating the literature and selected the appropriate journals for comparison. More than 20 articles are considered as being the primary literature in this paper. Undoubtedly, the paper explores the main idea of that through literature and illustrates the factors required for this research. As such, this paper systematically reviews the model, method, framework, approach and also summarizes the conclusions of the related literature. With an emerging project management practice in the UAE, PMO involves good planning prior to implementation.

Acknowledgment

The authors are grateful to those who have assisted directly or indirectly to complete this study at Universiti Teknikal Malaysia Melaka.

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