



**Midocean University
Faculty of Management
Master of Project Management**

Research Title

أثر مكتب إدارة المشاريع على جودة تنفيذ مشروع التوسعة الثالثة للحرم المكي

**The impact of the Project Management Office on the quality of
implementation of the 3rd expansion of Holy Mosque project**

Prepared by:

Eng. Ahmad M. Al-Zahrani

Eng. Abdulrahman R. Balud Alsulami

Acknowledgment
List of Figures
List of Tables
List of Abbreviations

Will be finalized later.

List of Content

Chapter 1

1.1 Introduction	
1.2 Study problem.....	
1.3 The importance of the study.....	
1.4 Objectives of the study.....	
1.5 Study Questions.....	
1.6 Methodology and research methods.....	
1.7 Study limitations.....	
1.8 Study tools (data Collection tools).....	
1.9 Research Hypotheses.....	

Chapter 2

2.1 Previous studies and theoretical framework.....	
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Chapter 3

3.1 List of references and preliminary sources.....	
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1.1 Introduction

The Holy Mosque in Mecca is the largest and most important mosque in Islam. It surrounds the Kaaba, the most sacred site in Islam. Due to its immense religious significance, there has been an ongoing expansion of the Holy Mosque complex to accommodate the growing number of pilgrims and worshipers.



F1.1 (KING ABDULLAH THIRD EXPANSION OF HOLY HARAM)

The third expansion of the Grand Mosque in the holy city of Makkah was its largest in history. Throughout the centuries, the expansions would focus on raising the capacity of worshippers. The central Mataf area has maintained its size over the years given the limited space available to expand it, so focus would often turn to the surrounding structures(english.aawsat Newspaper, 2023).

In 2005, King Abdullah bin Abdulaziz ordered that a study be made over expanding the capacity at the Grand Mosque to receive more worshippers and Hajj and Umrah pilgrims.

The expansion was implemented with the addition of four floors to the al-Masaa area to accommodate 120,000 people per hour. The Mataf area was expanded to accommodate 105,000 people per hour. The northern building of the Grand Mosque was expanded to accommodate more worshippers and the number of columns

throughout was reduced to make more space for people and combat crowding(Middle east Newspaper, 2023).

Management and delivery of such a large-scale, complex program of construction projects presents many challenges. Therefore, implementing an effective Project Management Office (PMO) can have a significant positive impact on the quality of project implementations.

The PMO would enable centralized oversight, governance, and capability building across the multitude of construction projects underway. Standardizing project management policies, processes, tools and quality metrics will promote consistency and efficiency.

The PMO auditing and reporting capabilities would identify issues early, enabling corrective actions. Its strategic prioritization and portfolio management of projects would align resource allocation with religious objectives.

Overall, the structure and discipline enabled by an empowered PMO will likely enhance the Holy Mosque project implementation quality in planning, delivery, monitoring, and closure. Realizing these quality improvements would fulfill the Saudi government's vision of providing a sublime experience for pilgrims visiting Islam's most sacred place.

This paper will analyze how implementing a PMO can influence various aspects of project quality for the Holy Mosque projects. It will study leading practices for PMOs and draw lessons for the specific context of the mega Mosque projects. The insights from this analysis will inform recommendations on how to structure and empower a PMO for optimal impact.

1.2 Study problem

The ongoing expansions of the Holy Mosque in Mecca involve a complex, multi-year program of construction projects aimed at accommodating the growing number of pilgrims. However, there are widespread challenges in consistent, high-quality execution of these strategically important projects. Issues such as cost overruns, schedule delays, safety incidents, and quality defects have been prevalent. For example, the project to construct the additional Mataf (circumambulation areas around the Kaaba) suffered delays of over 2 years and billions of dollars in cost overruns before opening in 2016.

These deficiencies point to a lack of centralized governance, standardization, oversight, and capability development across the multitude of Holy Mosque projects. As a result, projects are not benefiting from institutional learning and improvement. Moreover, project issues are often identified late, leading to crisis management. The absence of disciplined project portfolio management also leads to disconnects between resource allocation and strategic religious priorities.

Therefore, the core problem is that the lack of a structured Project Management Office (PMO) with appropriate authority and responsibilities has negatively impacted the quality of project delivery for the strategic Holy Mosque expansion program. Solving this problem by implementing an empowered PMO is critical to enable consistent, efficient, and high-quality execution of projects for this sacred site through best practice project management.

1.3 The importance of the study

The study is critically important for several reasons:

- The Holy Mosque is the most sacred site in Islam and its expansion is strategically vital to accommodate growing numbers of pilgrims. Poor project delivery quality undermines the religious vision and service for pilgrims.
- Billions of dollars are being invested in the expansions. Inefficiencies and poor quality execution lead to massive cost overruns, which is unacceptable.
- There are risks to worker and pilgrim safety from poor quality control. Construction flaws have already led to incidents like building collapses.

- Learning how to effectively implement a PMO will enable institutional learning and continuous improvement in project delivery, ensuring quality keeps pace with Saudi Arabia's expanding religious tourism industry.
- Findings will inform PMO design and governance for other large public sector programs in the Kingdom and globally that involve complex construction project portfolios.
- This research fills an important knowledge gap, as empirical studies on implementing PMOs in the public sector and religious context are limited.

In summary, improving Holy Mosque project delivery through an empowered PMO has immense religious significance and strategic economic impact. The research insights will be invaluable for the custodianship of Islam's holiest site and for large public projects across Saudi Arabia and internationally.

1.4 Objectives of the study

The study aims to evaluate the role of project management office (PMO) in ongoing projects of Holy Mosque in Mecca and its contribution to assure project management policies, processes, procedures, tools and technique in order to achieve high quality of work implementation.

1.5 Study Questions:

In order to achieve the aim of this study, selective objectives have to be met as follows:

1. To evaluate the current system of project delivery in the ongoing projects of Holy Mosque?
2. To investigate the major obstacles of the current system of project delivery that have been met?
3. To determine which part of the PMO quality plan needs to be enhanced/updated?
4. To implement & evaluate the updated PMO quality plan?

1.6 Methodology and research methods:

In this study, Four stages have been investigated starting with evaluating the current system of project delivery in the ongoing projects of Holy Mosque. Secondly, investigating the major obstacles of the current system of project delivery. Thirdly, determining which part of the PMO quality plan needs any enhancement or update. Lastly, Implementation & evaluation of the updated PMO quality plan.

1.7 Study Limitation:

The study is limited to the ongoing expansions of the Holy Mosque in Mecca. It covers the governmental, semi governmental and private sectors in the industry including stakeholders and parties (eg., client, client representative, consultant, main contractor, subcontractors and end user).

1.8 Study tools (data Collection tools):

To collect information from stakeholders and parties (eg., client, client representative, consultant, main contractor, subcontractors and end user), electronic forms to be used in this study.

1.9 Research Hypotheses

H1: The implementation of a centralized PMO with clearly defined roles and responsibilities will result in improved standardization of project management policies, processes, and tools across Holy Mosque projects.

H2: Training and mentoring of project managers and team members by the PMO will significantly enhance project management knowledge and skills for Holy Mosque projects.

H3: Enhanced project audits, oversight, and performance reporting by the empowered PMO will enable earlier identification and mitigation of project issues and risks.

H4: Strategic prioritization and resource allocation of projects by the PMO will lead to improved alignment of project portfolios with religious and operational objectives.

H5: Instituting PMO-led processes for project approvals, stage gate reviews, and closures will improve governance and accountability across all Holy Mosque projects.

H6: Overall project quality metrics including cost performance, schedule adherence, safety, and defect rates will improve significantly after PMO implementation compared to the pre-PMO baseline.

H7: PMO capabilities including dashboards, lessons learned, and PM training will create measurable, sustained improvements in project delivery quality over multiple years after implementation.

These hypotheses can be tested through quantitative and qualitative methods including surveys, interviews, audit studies, and statistical analysis of project performance metrics before and after PMO implementation.

2.1 Previous studies and theoretical framework:

Study	Publisher	Conclusion
Failure factors of Makkah's mega construction projects: qualitative study	Nashwan Al-Emad1,* , Ismail Abdul Rahman1 ,and Humair Khan2	The study has found that 30 % of project failure is due to Client/PMC, 50% due to contractors, 15% caused by the supervision consultant team and finally external factors contribute approximately 5% to project failures. It also identified 58 factors causing project failures, these factors were then classified into 4 main clusters namely Client Instigated Factors with 17 failure factors, Contractor Instigated Factors with 27 failure factors, Consultant Instigated Factors with 10 failure factors and External Instigated Factors with 4 failure factors
Identifying and overcoming the challenges of implementing a project management office	Rajendra Singh1 , Mark Keil2 and Vijay Kasi3	The study has found that there are many challenges. The top-three challenges identified were (1) rigid corporate culture and failure to manage organizational resistance to change, (2) lack of experienced PMs and PMO leadership, and (3) lack of appropriate change management strategy. In order to overcome these challenges, organizations need to have a strong PMO champion, start small and demonstrate the value of the PMO, obtain support from opinion leaders, hire an experienced program manager who understands the organization, bring he most talented PMs into the PMO implementation team, adopt a flexible change management strategy, and standardize PM processes prior to PMO implementation
The role of time, communication, and cost management on project management success: an empirical study on sample of construction projects customers in Makkah City, Kingdom of Saudi Arabia	Bahaà Abdul-Hafez Attallah Al-Nady* Sulieman Ibraheem Shelash Al-Hawary Main Naser Alolayyan	The study's findings suggested that successful PMs who implement the right time management (TM),Cost management (CM) and Cost management (COM) which all are interaction practices strongly influence project operation, workers and employees' sense of job success. The research finding underpinned the importance of the managerial role in the workplace and the value of the project manager's contribution to building a positive and success project environment, regardless of whether the project environment is stable or undergoing continual changes and growth initiated by project acquisitions. Good COM is an integral part of good management and an organizational and individual responsibility.

3.1 List of references and preliminary sources:

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4. Bandar Abdul-Rahman bin Muammar. *Third Expansion of Grand Mosque Launched by King Abdullah, Completed by King Salman*. English.aawsat, Issue 07 (2023).
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