

POSSIBILITY OF APPLYING PROFESSIONAL PROJECT MANAGEMENT ACCORDING TO PMBOK METHODOLOGY IN THE MINISTRY OF CONSTRUCTION, HOUSING AND MUNICIPALITIES / MUNICIPAL SECTOR

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ABSTRACT

Initiation, planning, implementation, monitoring, control and closure are the criteria used to ensure the effective implementation of all projects. This study aims to assessment the different practices of project management according to the methodology of the Professional Project Management Institute (PMBOK) By using "Project Management assessment Knowledge and experience Manual" Issued by Project Management Professional Institute. The Ministry of Construction, Housing and Municipalities / Municipal Sector was selected as the field of study. The results proved that there is a big failure in the Proficiency of project management practices in the ministry. These practices in the Ministry of Construction, Housing and Municipalities / Municipal Sector were classified as below the required level in terms of best practices. Finally, a number of recommendations were made to overcome possible shortcomings. The most important is the need for the government sector to implement its projects using standard processes according to the Knowledge Guide (PMBOK) because it is comprehensive and covers all areas of knowledge of project management which may contribute to a high success rate of projects.

INTRODUCTION

The great progress and diversity in the world of business has led to the creation of many methods that support the concepts of project management. Moreover, it is possible to generalize these modern methods and methodologies to other communities. The most prominent of these methodologies is the PMBOK issued by the Project Management Institute (PMI) which has achieved a wide spread in most the world. Due to the low rates of success of government sector projects, especially service-oriented nature that has a direct impact on the citizen (the customer). Therefore, it was necessary to work professionally for the maturity of these practices, which are considered as skills or areas of knowledge in the specialty of project management and to investigate the factors that

contribute directly or indirectly to the possibility of shifting to adopt its philosophy within the public sector, which will reflect positively on the success of projects because of the characteristic of this method of High accuracy towards achieving goals no matter how big or small business.

RESEARCH METHODOLOGY

a) Problem of study:

The management of projects in the public sector seems immature because it lacks a clear vision and the absence of basic requirements to be followed according to a specific methodology in addition to the increasing rates of failure of projects in the government sector, and given the importance of government projects because of the sensitivity of their

role and impact in the social and economic environment of our societies. Therefore, the researcher will try in this study to describe the possibility of applying modern methodologies for project management (PMBOK) and to verify the extent of application of its requirements in a sample of public sector important and vital (represented by the Ministry of Construction, Housing and Municipalities).

b) Importance of studying:

The research draws its importance from the fact that it deals with a major modern topic as project management is an approach that may add excellence in the performance of organizations. Therefore, the research will assess the current situation of the government sector and identify obstacles and barriers to the application of modern concepts.

c) Objectives of the study:

This research aims to shed light on the reality of project management practices in the public sector, in particular the Ministry of Construction, Housing, Municipalities and Public Works.

d) Research Sample and community:

The research community included the governmental public sector in Iraq. Four institutions were selected as a sample of the study consisting of (Baghdad province, the Ministry of Construction, Housing and Municipalities / Municipal Sector, Ministry of Water Resources, Projects Department / Baghdad Municipality).

e) Methods, tools and measures:

Dependent on the exploratory approach and the use of descriptive analytical and deductive method in the writing of the research as well as on the information and statistics obtained from the parties to which the subject of the research as follows:

1- The descriptive approach in the theoretical side, where the available literature related to project management practices and project success will be reviewed - personal interview with managers and supervisors of projects or practitioners of the profession of project management to find out their views on the subject of research.

3- Structured checklist issued by the Institute of Professional Project Management as tools to obtain the required information and through that information and data collected are analyzed and processed statistically to determine the result of the research.

LITERATURE REVIEW

1St : Philosophical discussion of the concept of projects:

Explain (Abdul Azeez & Ibraheem, 2011: 1) The multiplicity of definitions of the project by different authors is due to the fact that the project is a multidisciplinary word that has a different meaning from a different perspective and orientation. Engineers, administrators, social workers, etc., have developed their definitions of their experiences with respect to their profession. Although there are many definitions in the previous literature on the concept of the project, they may differ in theory and are very similar in practice While (PMI, PMBOK, 2017: 4) project is defined as a temporary work aimed at creating a unique product or service. Temporarily means that each project has a definite end or a unique recipe that means that the product or service is distinctly different from all products or services. This definition is identical to all previous versions of PMBOK. He mentioned (Sudani, 2018: 7) in the content of writing (project management - an operational approach) that the project is a systematic process starting with planning, organization, leadership and guidance, implementation and control management a set of financial, human, material and information resources to achieve the objectives of the organization and the project efficiently and effectively and in a way that adds value to the organization with a note This project has a starting point which is the start-up phase of the project, and ends with the closing phase of the project.

2ND Philosophy of professional project management:

Professional project management has been discussed from different philosophical perspectives but everyone agrees that it involves knowledge and the ability to make things happen. (Crawford, 2004: 1150) described that the definition of a distinct set of knowledge and criteria based on a range of cognitive

fields are ways to reach professionalism (Morris et al., 2000; Berry and Oakley, 1994). Kerzner (2003: 3) introduced a definition of project management that: "Project management is the planning, organization, direction and control of corporate resources to achieve a relatively short-term goal that has been established to achieve specific objectives and objectives while project management (OGC, 2009: 17). Planning, delegating, monitoring and controlling all aspects of the project to achieve project objectives within the expected performance objectives of time, cost, quality, scope, benefits and risks. PMBOK (2017: 10) definition of project management is identical to previous versions (PMBOK) defined as applying knowledge, skills, tools and techniques to project activities to meet project requirements and through appropriate application and appropriate integration of specific project management processes.

3rd Methodologies of project management:

(Kerzner, 2014: 191-200) defined methodologies as a set of forms, guidelines, models and checklists that could apply to a particular project or particular case and it may not be possible to find a uniform methodology applicable to each project and the researcher will present a set of methodologies. One of the most widespread methodologies worldwide PMI / PMBOK methodology This type of methodology relates to the division of project work into five clusters and is documented in the PMA's Guide to Knowledge. The five clusters begin with starting, planning, implementing, controlling, and closing) (Loureiro & Henriques, 2018 :27) &(Martinic,2012:703) describe Methodology (PMBOK) as a knowledge guide combining a set of processes, best practices and guidelines generally accepted as a standard in project management and managed by the Project Management Institute (PMI).

4th Project Management Process groups For PMBOK Methodology:

- 1- **Initiation Processes Group:** The start-up process consists of those processes that have been implemented to identify a new project or a new phase of the current project by obtaining permission to start the project or phase.
- 2- **Planning Processes Group:** (Heldman, 2009: 27) describes the planning process group as a set of processes and practices that

formulate and review the project goals and objectives and develop a project management plan that will be used to achieve the project objectives while (PMBOK, 2013: 55) said that this group consists of processes that take place To determine the overall scope of the effort, identify and refine goals, and develop the course of action necessary to achieve those goals.

- 3- **Executing Processes Group:** The implementation processes consists of those processes necessary to complete the work in accordance with the specifications and plan of the project management. (PMI, PMBOK, 2017: 40).
- 4- **Monitoring and Controlling Processes Group:** The control and control group consists of those processes required to track, review and organize the progress and performance of the project as well as to identify which areas require changes in the plan (Sanghera, 2019: 19).
- 5- **Closing Processes Group:** The closure process consists of those processes that confirm the completion and completion of all activities in all project management processes to formally close the project, phase or contractual obligation (PMBOK, 2017: 41) and (NOCÈRA, 2013: 76) indicated that the closure process includes product acceptance from Prior to the employer issuing final performance reports, indexing records and archiving, updating the knowledge base of lessons learned, closing the project and laying off project resources.

Practical side / results of the practical analysis

The results of the practical analysis of project management will be evaluated using structured checklist, checklists had been cited from "Project Management Experience and Knowledge Self-assessment Manual." Issued by Project Management Professional Institute. Execution, Monitoring, Control, Closing Overall Project Management Evaluation by Checklist:

If total >= 150 "Above the Average" (1-4)

Total (119 -117) "Within Average within the Average"..... (1-5)

Total <= (116) "Below the Average" (1-6)

The total represents the total points for all project operations (start, planning, implementation, monitoring and control, closure).

1- Initiation Processes Group Data: The Initiation Processes Groups criterion is evaluated from (11) paragraphs with the highest weight of the criterion (1.08) and the highest evaluation by the scale (11.88). The results were obtained as shown in the table (1):

First: Assessment the results of professionalism for project management

Table(1) Proficiency data results for the Initiation process

Sequence	Proficiency Statements For Initiation The Project	Ministry of reconstruction, housing and municipalities /municipal sector		
		Low	Medium	High
(Total for each Column)		5	6	0
Low-level column result = Total column * 0.36		1.8		
Intermediate column result = total column * 0.72		4.32		
High-level column result = total column * 1.08		0		
Total column points for the Planning group		6.12		
The average		0.56		
Percentage of match		52%		
Gap		48%		

It is clear from the results of table (1) that this criterion is obtained in the management of projects and the Ministry of Construction and Housing and Municipalities / Municipal Sector The degree (6.12) And the size of the gap (48%) These results indicate that there are deficiencies in the application to start the process of data management and in varying proportions.

2 - Planning Processes Group Data : The Planning process dataset criterion (Planning Processes Group) From (125)Paragraph and highest standard weight (0.36)And highest score by scale(45)The results were obtained as shown in table (2):

Table(2) Proficiency data results for the Planning process

Sequence	Proficiency Statements For Planning The Project	Ministry of reconstruction, housing and municipalities /municipal sector		
		Low	Medium	High
	(Total for each Column)	64	55	6
	Low-level column result = Total column * 0.12	7.68		
	Intermediate column result = total column * 0.24	13,2		
	High-level column result = total column * 0.36	2.16		
	Total column points for the Planning group	23.04		
	The average	0.18		
	Percentage of match	51%		
	Gap	49%		

The results of Table (2) showed that the Ministry of Construction and Housing / Municipal Sector obtained in this criterion a score of (23.04) and a gap size (49%).

3- Executing Processes Group: The criteria of the Executing Processes Group are evaluated from (40) items with the highest weight of the criterion (2.16) and the highest score according to the scale (86.4). The results were obtained as shown in the table. (3):

Table(3) Proficiency data results for the Executing process

Sequence	Proficiency Statements For Executing The Project	Ministry of reconstruction, housing and municipalities /municipal sector		
		Low	Medium	High
	(Total for each Column)	11	25	4
	Low-level column result = Total column * 0.72	7.92		
	Intermediate column result = total column * 1.44	36		
	High-level column result = total column * 2.88	8.64		
	Total column points for the Planning group	52.56		
	The average	1.31		
	Percentage of match	61%		
	Gap	39%		

Observing the results in Table (3) indicates that this criterion has a score of (52.56) and a gap size (39%). These results indicate a weakness in the implementation of the implementation management data in the Ministry of Construction, Housing and Municipalities / Municipal Sector.

4- Monitoring and Controlling Groups Data Group: The Monitoring and Controlling Groups data set is evaluated from (47) items with the highest weight of the standard (0.99) and the highest score according to the classification of the scale (46.53). On the results as shown in Table (4):

Table(4) Proficiency data results for the Monitoring & Controlling process

Sequence	Proficiency Statements For The Monitoring & Controlling Project	Ministry of reconstruction, housing and municipalities /municipal sector		
		Low	Medium	High
(Total for each Column)		29	18	0
Low-level column result = Total column * 0.33		9.57		
Intermediate column result = total column * 0.66		11.88		
High-level column result = total column * 0.99		0		
Total column points for the Planning group		21.45		
The average		0.46		
Percentage of match		46%		
Gap		54%		

It is clear from the results of table (4) that this criterion obtained a score of (21.45) and a gap size (54%) and these results indicate the lack of application of the data of monitoring and control process management Ministry of Construction, Housing and Municipalities.

5. Closing Processes Group: The Closing Processes Group is evaluated from (11) items with the highest weight of the standard (1.08) and the highest score according to the scale (11.88). The table(5) shows the results obtained on her .

Table(5) Proficiency data results for Closing process

Sequence	Proficiency Statements For Closing The Project	Ministry of reconstruction, housing and municipalities /municipal sector		
		Low	Medium	High
(Total for each Column)		3	5	3
Low-level column result = Total column * 0.36		1.08		
Intermediate column result = total column * 0.72		3.6		
High-level column result = total column * 1.08		3.24		

Total column points for the Planning group	7.92
The average	0.72
Percentage of match	67%
Gap	33%

By presenting the results in Table (5), it was noted that the Ministry of Construction, Housing and Municipalities / Municipal Sector obtained in this criterion a score of (7.92) and a gap size (33%). These results indicate a weakness in the application of closure management data.

Second: Final Assessment of Project Management Professional Requirements:

Referring to the above and after the presentation and discussion of the results are assessed the total requirements for professional management of projects and according to the checklist issued by the Institute of Professional Project Management where the highest score for the evaluation of professional requirements for project management is (201.69) as the evaluation categories are (below average, within Rate, above average (where the total, which represents the total points for all project operations (start, planning, implementation, monitoring and control, closure) with comparative scores for the professional requirements of project management where the results are as shown in Table (6):

Table(6) Final Assessment For Proficiency of project management for the Ministry of Construction, Housing and Municipalities / Municipal Sector

Project Management Processes Group	Ministry of reconstruction, housing and municipalities /municipal sector	
	Rating score	Gap Size
Initiation	6.12	48%
Planning	23.04	49%
Executing	52.56	39%
Monitoring and control	21.45	54%
Closing	7.92	33%
Total	111.09	
Final Project Management Assessment		
Total > = "Above the average 150 "above average Total (117-149) "Within The Average" Total <= 116 "Below The Average"	Below The Average	

According to table (6), the total score for the Ministry of reconstruction, housing and municipalities /municipal sector (111.09), which is considered to be within the assessment rate While the highest gap was recorded for the control and control Processes group (54%).

CONCLUSION AND RECOMMENDATIONS

First: Conclusions

- 1- The results of this work showed that there is a gap in the inadequacy of project management practices in the public sector in Iraq, especially in the Ministry of

Construction, Housing and Municipalities / Municipal Sector. This was mainly due to the lack of formal project methodology with clear project implementation mechanisms. It was clear from the results that project management did not follow an integrated system.

- 2- Some project management practices adopted by the Ministry of Construction, Housing and Municipalities / Municipal Sector were found
- 3- .

Second: Recommendations

- 1- It's necessary to disseminate and document lessons learned from previous projects.
- 2- The need to adopt the PMBOK methodology as it is comprehensive and covers all areas of knowledge in project management.
- 3- Building awareness among civil servants. All parties involved in project management should attend workshops, classes or conferences on project management to build formal public awareness.
- 4- The Ministry should adopt and implement project management effectively in its activities.
- 5- Cooperation with other countries in order to exchange experiences in the areas of project management.

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