



Correlation Between the Management Factors Affecting PMO Implementation in UAE Construction

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Abstract: PMO is a very effective strategy for improving construction performance. In the UAE construction industry, PMO is a relatively new trend. Hence it is facing several challenges during construction project implementation. These challenges affect PMO performance. Thus, this study identified the major management-related issues and assessed the correlation between the identified factors better to understand PMO implementation performance in the UAE construction industry. The study adopted a quantitative approach where the data was collected using a designed questionnaire. It used simple random technique sampling and gathered 100 valid questionnaire forms against 200 distributed questionnaires forms. The reliability test shows that the data was excellent, having an Alpha value of more than 0.8. Based on the Spearman test, a correlation matrix was developed to understand the relationship between the factors. Based on the correlation matrix, it is found that “inexperienced PMO leadership and project managers”, “unskilled and inexperienced project management personnel,” and “inability to identify the required soft skills in the implementation of PMO” are mutually correlated with each other. In the project management domain, important factors are “overworked project managers due to additional administrative”, “a poorly laid communication strategy on the implementation of PMO purposes and goals”, “minimize bureaucracy to the existing organizational structure”, “unacceptance from senior management” and “selection of the right system to be used” has a high correlation with the factor “Inaccurate information for reporting”. The findings of this study will be helpful for decision making to prioritizing for mitigating or taking corrective actions.

Keywords: Resource management, project management, correlation, PMO, UAE

1. Introduction

A Project Management Office (PMO) defines and maintains the quality of managing projects of the organization. PMO sets policy, regulations, processes, and Standard Operation Procedure (SOP). In addition, it outlines the formation, management, project control, and programs or portfolios (Khan, 2013; Harthi, 2015). Since the construction industry is usually criticized for poor quality, aggressive relationships, low productivity, and an unwillingness to

change, organizations are moving to adopt an organizational restructuring to improve the performance with the adoption of PMO implementation (Winch, G. M. 2010). Several Middle East countries have implemented PMO to enhance profitability and maintain the quality of the construction projects. PMO eliminates inefficiency and waste of resources. Among the main challenges of implementing PMO is the lacking of uniform and standard procedures that can be accepted during operations and processes of the construction projects (Van der Linde and Steyn, 2016).

Despite the increased adoption of PMO, there are debates on how valuable PMO is to a construction project that focuses on the failure or success of the adoption of PMO. Some research studies suggest that PMO methods manage construction projects in general. Still, not all result in the effective fulfillment of defined objectives and targets such as on-time completion (Khan, 2013). The essential factors in PMO implementation are management experience, project size, and organizational type (Al Ahababi, 2014). Clearly stated objectives, senior management backing, a well-defined plan, and effective communication are all required for implementing a successful PMO (Too and Weaver, 2014).

The project management office (PMO) in the construction industry-main role is to assist a practical implementation of the construction projects undertaken by the company. However, the researcher has reported that PMOs are unable to meet the set objectives of a construction organization which are attributed to the challenges such as unrealistic objectives, poor implementation setup, and staff mismanagement (Baiden, Price, and Dainty, 2006; Levy, 2018; Al Khooriand Hamid, 2018). For instance, project completion schedules have proved to be the most daunting task for project managers (Levy, 2018; Alshammari et al., 2020). In addition, several projects face delays due to the poor implementation process of PMO, such as slow decision-making, late drawings approval, and poor planning ultimately (Babaeianpour and Zohrevandi, 2014; Oliveira et al. 2017).

Jalal and Koosha (2015) pointed out that PMO faces challenges such as meeting the timelines and cultural issues, specifically on construction industry from different countries like Iran, Vietnam, and India. The success of the construction projects may not necessarily require formalized PMO, but PMO can be with the organization structure. Even the name may not be PMO, but the roles it performs are similar to PMO (SalamahandAlnaji, 2014; Alqahtani, 2019). Godbole (2014) and Wedekind and Philbin (2018) also suggested that the PMO roles are significant in ensuring the success of the project performance. Since PMO is still new in the UAE construction industry, it creates an opportunity to study PMO issues within the industry. PMO faces many challenges during construction project implementation. Hence, this paper focuses on studying the effects on PMO implementation's success in the UAE construction industry. This was administered through a questionnaire survey and bivariate analysis of Spearman correlation.

2. Literature Review

2.1 Construction Industry in UAE

The construction industry has great potential for growth in any country due to the high demand for residential, commercial, housing, institutional, and infrastructure developments. It has substantial and significant impacts on its economy (Al-Emadet al, 2016; Emereet al., 2019). It involves a diverse group of stakeholders and has several connections to other areas of activity such as manufacturing and material consumption, energy, finance, labour, and equipment. The construction industry is classified into industrial, residential, commercial, utilities, and infrastructure work. The UAE construction industry is dominated by two players: the project developer and the contractor (Al Ahababi, 2014). The UAE construction market has attracted investors, but it faces several challenges that can lead to failure (Alameri et al., 2021). Among the challenges, the competitive nature of the industry is one of the critical problems.

The UAE construction sector is popularized due to several mega projects. Mega construction projects are usually considered as those projects which involve an investment of around \$1 billion. Megaprojects can be like development for Olympic games, airports, hydropower and large power generation schemes, significant rail developments, and even relatively modest Oil and Gas projects (Shaukat, 2012). These are few examples of megaprojects in the UAE, such as Masdar City, Yas Island, and Burj Khalifa, which have been completed (Shaukat, 2012).

There are many challenges and issues in managing megaprojects; Shaukat (2012) has summarised these challenges based on the experience from Mott MacDonald's company that undertaking the megaprojects are as follows;

- i. Since there is no single project owner or leader of the project. Thus too many persons are giving instructions
- ii. If the project is not well defined, it can cause misinterpretation between all parties involved in the project
- iii. Some of the mega projects are too futuristic, where the required technical solutions are beyond the state-of-the-art
- iv. Practicalitysurpassed by the enthusiasm which should be reminded to the project owner
- v. Most of the mega projects involved political interference, and it is challenging to handle politicians
- vi. It is difficult to keep out stakeholders involved where they usually want to make several significant changes to the agreed features of the project.
- vii. Since the mega project are huge where it involves many resources and processes, thus weak procedures and processes are causing ineffective management of the project

- viii. Mega construction project took a long duration of construction, then economic climate at the planning stage entirely differs with the time of construction, which will involve payments and this will involve payments and others issues.
- ix. Another challenge is where the client or project team is inexperienced in terms of the legality, technology, resources, and other aspects of construction.
- x. Several mega construction projects resulted in contractual disputes where certain parties cannot deliver or perform the duty of promises.
- xi. Mega construction project involves many risks which, if not able to identify all the suitable risks, will result in not being able to manage it.
- xii. Lack of recording the challenges for retaining learning's for the next mega project

With these challenges, logically, it requires a centralized body to coordinate the challenges in assisting the mega construction company overcome them. Therefore, the appropriate body within the company organization to assist in the project management office (PMO), which is usually under the purview of the organization's top management.

2.2 Project Management Office (PMO)

Large construction projects are very visible to the public and usually take longer period of more than one year. Successful completion of such projects requires high level of collaboration between many stakeholders. They need the application of project management principles such as communication, time management, quality and human resources to transform the overwhelming tasks into successful deliverables. Hence Project Management Office (PMO) team/department in the organization/company is beneficial. Project Management Office (PMO) is a department inside an organization that establishes standards and procedures during the project's operation. The project management office (PMO) is a central control point for both the project and senior management in adopting professional standards throughout project management. PMO enhances essential tasks such as governance, resource planning, project management techniques, and measurement. PMO creates a working standard while trying to devise new ways of working around the activities of the project (Al Ahababi, 2014). PMO operates to efficiently incorporate techniques, methodologies, principles, standards, and project management tools. It focuses on enhancing project execution and increasing efficiency (Foti, 2001).

The primary role of PMO is to effectively coordinate several projects by a single organization to attain consistency in operations (Al Ahababi, 2014). Most organizations believe that the management can use PMO to control all activities that are significant for project success centrally. Project managers need PMO in the operations as it helps execute the strategic plan and improve performance in quality and resource allocation (Purohit, 2012). Ultimately, PMO operates in conjunction with the top management to create a working environment to enable the effective management of several practices of an ongoing project. In addition, PMO is responsible for identifying the suitable projects to be undertaken within a specific period. Letvec (2006) highlighted the functions of PMO in terms of consultancy as:

- (i) Planning and initiation of a project
- (ii) Scrutinizing and outlining the priorities of a project
- (iii) Development of a project proposal
- (iv) Guidance on how to start a project
- (v) Provides a plan for the execution of project plans
- (vi) Project presentation to the senior management
- (vii) Provide mitigation strategies to deal with any arising hurdles
- (viii) Creates an avenue for furthering skills in project management

Though the PMO is very beneficial for the project to achieve success, several issues/challenges of Project Management Office (PMO) implementation affect the operations of the project and its performance. The research works have highlighted that significant issues in PMO are management related as discussed in the following sub-section.

2.3 Factors Affecting PMO Implementation

The Project Management Office (PMO) is facing challenges in the implementation process (Almansoori et al., 2021). For example, Rego and Silva (2012) pointed out that project management structures, project manager relationships, the role of the project manager, and project manager competencies are significant issues that hinder the successful implementation of PMO. On the other hand, Oliveira et al. (2017) mentioned that significant challenges in PMO implementation are monitoring and controlling project performance; project management competency and method; multi-project management; strategic management; organizational learning. Therefore, based on the literature review, it can be concluded that the factors affecting the PMO implementation can be clustered as management issues mainly classified as resource management and project management factors.

2.3.1 Resource Management Factors

Managing resources for a project regards the resource allocation and the pursue activities in obtaining the required project results timeframe (Carrillo et al., 2010, Memon and Zin, 2010). Resource shortages can disturb managers' ability to deliver the project successfully. Hence by understanding the resource allocation and set of skills that exist within the organization can provide the ability to balance demand and also apply the right resources at the right time (Li et al., 2017). On the other hand, poor resource management significantly affects time and cost performance (Memon et al., 2021). However, it is an entirely different game for multi-project resource management because it needs to solve the resource conflicts amongst various projects and try to achieve optimal allocation of limited resources (Li and Tang, 2010).

In organizations, resources are cost, people, space, or equipment (Emerson, 2018). If the critical resources are improperly allocated, it could result in business failure (Sopko, 2015). Poor approaches and practices could lead to a contradiction in managing and controlling the project resource. Besides this, the PMO staff must have a high project management experience because its role is to support project managers (Almutairi, 2015). The unskilled workers make a living with little or no degree of security of income and employment and require little or no training to make them perform (Wahab, 2011). The stakeholders are worried about insufficiently skilled workers in the industry (Castaneda, Tucker, and Haas, 2005). Unskilled worker contributes to poor workmanship. According to Bheemaiah and Smith (2015), skilled workers create significant economic value through work.

For successful implementation of the PMO, an adequate strategy is essential. Hyatali and Fai Pun (2016) highlighted that strategy development is a critical criterion in PMO implementation. Hence, proper training can play a vital role. Oliveira et al. (2017) mentioned that employees' lack of training and development is a weakness to the successful implementation of PMO.

2.3.2 Project Management Factors

Project management describes the application of planning, organizing, and managing resources to complete the project goal successfully (Barzelis, Mejere, and Karveliēne, 2010). It addresses innovative administrative challenges in the organisation's situation where complexity, ambiguity, and obscurity remain the regulation (Patil, 2016). Project management ensures the successful completion of the project without issues and conflicts. Conflict can start at the briefing stage until the completion of the project (Gardiner and Simmons, 1994). Disputes can occur due to limited resources such as lack of time, money, labour, materials, or equipment (Harmon, 2003). Conflicts may affect communications between people, disrupt personal and professional relationships, and reduce efficiency (Jaffar, Tharim, and Shuib, 2011). The conflicts can be controlled by active involvement and support of the top management. Top management support essentially cares about resource provision, participation, and involvement. The top management should primarily attend the steering committee meetings, adopt the PMO processes and approach, and empower the PMO by giving the managers' decision-making authority (Dong et al., 2009; Salamah and Alnaji, 2014).

One of the essential factors of project management successes is the allocation of the workload, mainly administrative workload. The workload is the volume of work assigned to a worker in a specified period (Rajan, 2018). Sudden increase or decrease in workload has correlated with low performance (Shah et al., 2011). Besides this, communication is an important aspect. Communication is the way of delivering information to employees, engaging stakeholders, and assisting team members. Project objectives should be communicated to the project members to improve their understanding of the aim to be achieved (Sandhu, Al Ameri, and Wikstrom 2019).

Through literature review, several factors affecting the implementation of PMO in the construction industry. As a result, 11 resource management factors and six project management factors were identified as listed in table 1.

Table 1 - List of management factors Affecting PMO implementation

No.	Resource Management Factors	Project Management Factors
1	Inconsistency of PMO resource	Conflict over project management ownership
2	Inexperience PMO leadership	Lack of top management support
3	Unskilled project management personnel	Additional administrative workload
4	Inability to identify soft skills for PMO personnel	Poor communication strategy
5	Poor strategies	High bureaucracy
6	Lack of training	Poor integration of organizational function
7	Inability to encourage and gain motivation	New procedures and process challenge
8	Lack of PMO functional tools	Selection of PMO system

9	Lack of funds	Inaccurate information reporting
10	Selection of PMO manager	
11	Lack of professional staff	

3. Research Method

This study was carried out using the positivist paradigm of the research. The Positivist paradigm relies on the belief that the social world consists of concrete and unchangeable reality which can be quantified objectively (Rahman, 2017). The positivist approach requires an objective research methodology, emphasizing measuring variables and testing hypotheses linked to general causal explanations (Marczyk, DeMatteo, and Festinger, 2005). Hence, the positivist paradigm uses quantitative research methods to describe the parameters and coefficients to understand relationships embedded in the data analyzed (Kivunja and Kuyini, 2017). A positivistic approach is cost-effective, fast data collection mode, straightforward analysis, appropriate for testing hypotheses and determining relationships amongst variables. Data collection was done based on a quantitative approach or positivist paradigm where the primary data is collected through a questionnaire survey. Then, the collected information is analyzed by statistical method to deduce the objectives of the study explicitly.

According to Kerlinger and Lee (2000), quantitative research is deductive because researchers make inferences based on direct observations with the primary goal to describe cause and effect. The quantitative approach is valuable to the researcher to draw meaningful results from many data (Zhang and Prybutok, 2005). The response of the practitioners was recorded with the help of the Likert scale. The Likert scale is a psychometric scale with multiple categories from which respondents choose to indicate their opinions, attitudes, or feelings about a particular issue (Nemoto and Beglar, 2014). The Likert scale uses different measurement ranges in terms of many response options from 2-points to 11-points Likert scale (Taherdoost, 2019). In this study 5-point, Likert scale was used to assess the significance level of the variables. The scale for this study was used as 1 for not significant, 2 for slightly significant, 3 for moderately significant, 4 for highly significant and 5 for extremely significant as adopted by Khahro et. al. (2021).

4. Results and Discussions

Before the analysis of data, the profile of the respondents participating in data collection was examined. The characteristics of the respondents are summarized in table 2.

Table 2 - Characteristics of the respondents

Category	Items	Frequency	Percentage of respondents
Experience	Less than 5 years	11	11.0%
	5 years to 10 years	25	25.0%
	11 years to 20 years	42	42.0%
	21 years to 30 years	19	19.0%
	Above 30 years	3	3.0%
Education Level	Diploma	7	7.0%
	Bachelor Degree	48	48.0%
	Masters Degree	38	38.0%
	Doctor of Philosophy	7	7.0%
Organization Size	Large	78	78%
	Medium	22	22%

Table 2 depicts that most of the respondents are working in large organizations representing 78% of the participation in the data collection. Only 22% of the respondents belong to medium organizations. The participants of the survey have attained a different level of educations. Among these, 48% of the participants are bachelor's degree holders in civil engineering, 38% of respondents have completed the master's degree, while 7% of respondents are diploma and Ph.D. holders each. These practitioners have been working for several years in the construction sector. The survey results highlight that 42% of the respondents have experience of 11 to 20 years, 22% of respondents are working for more than 20 years.

On the other hand, 25% of respondents have experience of more than 5 years, and only 11% of respondents have working experience of less than 5 years. The demographic information shows that the respondents can give the required feedback regarding the implementation of the PMO in the construction industry. The data collected was further checked for reliability before analyzing for the objective of the study. Reliability measures the consistency, precision,

repeatability, and trustworthiness of research (Chakrabartty, 2013). In the quantitative research approach, reliability refers to the consistency, stability and repeatability of results is considered reliable if consistent results of a researcher have been obtained in identical situations but different circumstances (Mohajan, 2017). The reliability of the questionnaire is measured by calculating Cronbach’s alpha reliability coefficient generally ranges between 0 and 1(Koonce and Kelly, 2014). The closer Cronbach’s alpha coefficient is to 1, the greater the internal consistency of the items in the scale. Reliability was assessed based on the Cronbach Alpha value computed with the help of SPSS software package. Analysis revealed that the Alpha value of resource management indicators is 0.881 while the Alpha value for project management indicators is 0.874. The generally accepted rule is that alpha of 0.6-0.7 indicates an acceptable level of reliability, and 0.8 or greater an excellent level (Ursachi, Horodnic, and Zait, 2015). Since the Alpha values obtained in this study are more than 0.8, the data collected is considered reliable at a good level. The correlation between the factors was assessed with the Spearman correlation test. The value and correlation level between resource management factors are presented in table 3.

Table 3 - Correlation table between resource management factors

Resource Management Indicators		Inconsistency of resource	Inexperienced PMO leadership and project managers	Unskilled and inexperienced project management personnel	Inability to identify the required soft skills in the implementation of PMO	Inconsistency in the PMO resource continuity due to lack of stable stakeholders	Lack of functionality needed in tools of PMO	A poorly defined means of funding the implementation process of PMO	Lack of functional tools for PMO implementation	Lack of funding to PMO implementation	Selection of PMO manager	Lack of professional staff
Inconsistency of resource	Correlation Coefficient	1.000	.501**	.485**	.297**	.367**	.321**	.204*	.287**	.386**	.255*	.195
	Sig. (2-tailed)		.000	.000	.003	.000	.001	.042	.004	.000	.011	.052
Inexperienced PMO leadership and project managers	Correlation Coefficient	.501**	1.000	.573**	.420**	.357**	.280**	.281**	.297**	.386**	.358**	.281**
	Sig. (2-tailed)	.000		.000	.000	.000	.005	.005	.003	.000	.000	.005
Unskilled and inexperienced project management personnel	Correlation Coefficient	.485**	.573**	1.000	.589**	.340**	.233*	.274**	.344**	.279**	.396**	.427**
	Sig. (2-tailed)	.000	.000		.000	.001	.020	.006	.000	.005	.000	.000
Inability to identify the required soft skills in the implementation of PMO	Correlation Coefficient	.297**	.420**	.589**	1.000	.437**	.289**	.274**	.183	.233*	.351**	.315**
	Sig. (2-tailed)	.003	.000	.000		.000	.004	.006	.068	.020	.000	.001
Inconsistency in the PMO resource continuity due to lack of stable stakeholders	Correlation Coefficient	.367**	.357**	.340**	.437**	1.000	.514**	.356**	.209*	.339**	.283**	.281**
	Sig. (2-tailed)	.000	.000	.001	.000		.000	.000	.037	.001	.004	.005
Lack of functionality needed in tools of PMO	Correlation Coefficient	.321**	.280**	.233*	.289**	.514**	1.000	.556**	.375**	.384**	.426**	.247*
	Sig. (2-tailed)	.001	.005	.020	.004	.000		.000	.000	.000	.000	.013
A poorly defined means of funding the implementation process of PMO	Correlation Coefficient	.204*	.281**	.274**	.274**	.356**	.556**	1.000	.429**	.302**	.367**	.272**
	Sig. (2-tailed)	.042	.005	.006	.006	.000	.000		.000	.002	.000	.006
Lack of functional tools for PMO	Correlation Coefficient	.287**	.297**	.344**	.183	.209*	.375**	.429**	1.000	.484**	.329**	.330**
	Sig. (2-tailed)											

implementation	Sig. (2-tailed)	.004	.003	.000	.068	.037	.000	.000	.000	.001	.001	
Lack of funding to PMO implementation	Correlation Coefficient	.386**	.386**	.279**	.233*	.339**	.384**	.302**	.484**	1.000	.522**	.426**
	Sig. (2-tailed)	.000	.000	.005	.020	.001	.000	.002	.000		.000	.000
Selection of PMO manager	Correlation Coefficient	.255*	.358**	.396**	.351**	.283**	.426**	.367**	.329**	.522**	1.000	.631**
	Sig. (2-tailed)	.011	.000	.000	.000	.004	.000	.000	.001	.000		.000
Lack of professional staff	Correlation Coefficient	.195	.281**	.427**	.315**	.281**	.247*	.272**	.330**	.426**	.631**	1.000
	Sig. (2-tailed)	.052	.005	.000	.001	.005	.013	.006	.001	.000	.000	

Table 3 shows the correlation of the factors of resource management affecting PMO implementation in the construction industry. In the table, the values with * depict the correlation coefficient at 95% confidence level. At the same time, the values with ** represent the correlation coefficient at 99% confidence level. Examining the values from the table at 99% confidence level, we can find that there is a high correlation between the factors “inconsistency of resource is highly correlate” and “Inexperienced PMO leadership and project managers”. Similarly, “Inexperienced PMO leadership and project managers” also has high level of correlation with the factor “unskilled and inexperienced project management personnel”. The factor “Unskilled and inexperienced project management personnel” also has a high level of correlation with the factor “inability to identify the required soft skills in implementing PMO”. For example, with the correlation coefficient of 0.54 at 99% confidence level, the factor “inconsistency in the PMO resource continuity due to lack of stable stakeholders” correlates with the factor “Lack of functionality needed in tools of PMO”. This factor, “lack of functionality needed in tools of PMO” is also highly correlated with the factor “a poorly defined means of funding the implementation process of PMO” with a value of 0.556. Besides these, the factor “lack of funding to PMO implementation” is highly correlated with the “selection of PMO manager”. Overall, it can be observed that the factors “Inexperienced PMO leadership and project managers”, “Unskilled and inexperienced project management personnel” and “Inability to identify the required soft skills in the implementation of PMO” are mutually correlated with each other correlating with more than one factors. These are considered as more important to prioritize for decision making to make necessary arrangements. Project management-related factors were also analyzed with the Spearman test, and the results are presented in Table 4.

Table 4 shows the correlation of the project management factors affecting PMO implementation in the construction industry. Results of correlation indicate that all the factors are correlated with each other. However, the level of correlation varies. In-depth examination of the results shows that the factors “Overworked project managers due to additional administrative” and “A poorly laid communication strategy on the implementation of PMO purposes and goals” have a high correlation with each other with the value of 0.578 at 99% of confidence level. Similarly, “Minimise bureaucracy to the existing organizational structure” has high correlation with the factor “Unacceptance from senior management”. With a correlation coefficient of 0.596, the factors “Selection of the right system to be used” have a high correlation with the “Inaccurate information for reporting”.

Table 4 - Correlation table between project management factors

Resource Management Indicators		Conflict over project management ownership	Lack of support from top management	Overworked project managers due to additional administrative workload	A poorly laid communication strategy on the implementation of PMO purposes and goals	Minimise bureaucracy to the existing organizational structure	Unacceptance from senior management	Inability to identify soft skills for personnel	Selection of the right system to be used	Inaccurate information for reporting
Conflict over project management ownership	Correlation Coefficient	1.000	.439**	.362**	.366**	.332**	.255*	.294**	.308**	.343**
	Sig. (2-tailed)		.000	.000	.000	.001	.010	.003	.002	.000

Lack of support from top management	Correlation Coefficient	.439**	1.000	.443**	.310**	.264**	.303**	.305**	.368**	.380**
	Sig. (2-tailed)	.000		.000	.002	.008	.002	.002	.000	.000
Overworked project managers due to additional administrative workload	Correlation Coefficient	.362**	.443**	1.000	.578**	.431**	.319**	.280**	.472**	.431**
	Sig. (2-tailed)	.000	.000		.000	.000	.001	.005	.000	.000
A poorly laid communication strategy on the implementation of PMO purposes and goals	Correlation Coefficient	.366**	.310**	.578**	1.000	.289**	.232*	.157	.455**	.411**
	Sig. (2-tailed)	.000	.002	.000		.004	.020	.119	.000	.000
Minimise bureaucracy to the existing organizational structure	Correlation Coefficient	.332**	.264**	.431**	.289**	1.000	.580**	.339**	.249*	.220*
	Sig. (2-tailed)	.001	.008	.000	.004		.000	.001	.013	.028
Unacceptance from senior management	Correlation Coefficient	.255*	.303**	.319**	.232*	.580**	1.000	.437**	.318**	.307**
	Sig. (2-tailed)	.010	.002	.001	.020	.000		.000	.001	.002
Inability to identify soft skills for personnel	Correlation Coefficient	.294**	.305**	.280**	.157	.339**	.437**	1.000	.425**	.341**
	Sig. (2-tailed)	.003	.002	.005	.119	.001	.000		.000	.001
Selection of the right system to be used	Correlation Coefficient	.308**	.368**	.472**	.455**	.249*	.318**	.425**	1.000	.596**
	Sig. (2-tailed)	.002	.000	.000	.000	.013	.001	.000		.000
Inaccurate information for reporting	Correlation Coefficient	.343**	.380**	.431**	.411**	.220*	.307**	.341**	.596**	1.000
	Sig. (2-tailed)	.000	.000	.000	.000	.028	.002	.001	.000	

5. Conclusion

Mega construction projects are reported as complex projects. They often face challenges to complete. PMO is engaged to monitor and control the challenges. It maintains coordination between the stakeholders and makes efforts for successful project completion. However, being a new strategy in the UAE, PMOs also face various hurdles in implementation. This paper highlight management-related issues which hindered PMO implementation and developed a correlation matrix with the Spearman correlation test. We assessed the results obtained from an analysis of 100 questionnaire sets collected from practitioners involved in the construction industry of the UAE. The results show that at 99% confidence level the factors which have high correlation with each other related to resource management factors are “inconsistency of resource is highly correlate”, “inexperienced PMO leadership and project managers”, “unskilled and inexperienced project management personnel”, “unskilled and inexperienced project management personnel”, “inability to identify the required soft skills in the implementation of PMO”, “inconsistency in the PMO resource continuity due to lack of stable stakeholders”, “lack of functionality needed in tools of PMO”, “a poorly defined means of funding the implementation process of PMO”, “lack of funding to PMO implementation” and “selection of PMO manager”. On the otherhand, the factors of project management which have high correlation with each other are “overworked project managers due to additional administrative”, “a poorly laid communication strategy on the implementation of PMO purposes and goals”, “minimise bureaucracy to the existing organizational structure”, “unacceptance from senior management” and “selection of the right system to be used” has high correlation with the factor “Inaccurate information for reporting”. The findings of the developed correlation matrix will help in proper decision making for making necessary arrangements to mitigate the factors affecting PMO implementations.

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