

## PMO's Domains of Control, Influence and Concern as a determinator for PMO success

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### Abstract

Organizations must contend with competitive and globalized marketplaces and ongoing environmental changes, which frequently make it important for an organization to restructure the business models for improving the overall performance. The various techniques of managing the project can thereby assist an organizations in achieving strategic goals and increasing the value of initiatives. This will be followed with the necessary support which can be obtained by the PMO's office. Project management offices (PMO) are dynamic organizational units that frequently need to change and adapt their characteristics to maintain their value to the organization. It creates uncertainty on setting up, running, and developing successful PMOs. We have discussed the PMO domain, which includes Control, Influence, and concern, along with its categories & interactions between these domains to fulfil the PMO-mandated services and continuously evaluate and improve its service offerings. This paper introduces a new PMO success framework-agnostic that defines PMO success in achieving maximum potential benefit within Control and Influence. Also, we have determined the constructs of PMO Success by employing the sphere of control scale, that is, the most appropriate spatial level to identify, measure and conceptualize PMO Success. The basis on the questionnaire & responses we have received from the eligible 113 respondents, we have done the SPSS analysis and have identified the PMO success. A maximum potential benefit is achieved within the PMO domain of Control and PMO domain of Influence. The implication for PMO success research consists of a new integrative conceptual framework for PMO success, its components, and its interactions. This paper expands our understanding of PMO success scales and investigates new research areas as part of its future objectives.

**Keywords:** PMO Success, Value, Benefit, Domain of Influence, Domain of Control, Domain of Concern

### Introduction

Businesses are facing more scrutiny from the outside world, which

mandates constant innovation in products and services in order to keep their competitive edge and meet the needs of consumers. Today's organisations use project management exhibits as part of their strategy and as an essential component in the generation of competitive advantages. Project management practises are defined as the use of knowledge, skills, tools, and techniques to meet the needs and goals of projects by implementing appropriate processes and methodologies (Crawford J. K., 2010).

As the volume and complexity of projects in the business sector have risen, so has the need for centralised project coordinating functions. Effective project governance for project management relates to the value system, duties, procedures, and rules that allow projects to accomplish organisational goals for the benefit of stakeholders within and outside the organisation and the organisation itself (Müller R., 2009). Several enterprises finish projects without using a formal process for managing projects and instead rely on random methods resulting in disappointing outcomes. A number of companies have created novel structures over the past few decades to tackle this issue, such as the Project Management Office, which improves project execution and eliminates wasted resources.

According to its definition, a project management office is "an organisational body or institution entrusted with multiple responsibilities relating to the unified and integrated management of duties within its jurisdiction." Anything from performing support functions for project management to directly managing projects may fall under the purview of the PMO.

For many organisations, it might be difficult to define the PMO role and task for long-term performance, as well as how to make use of the PMO to assist the company accomplish its long-term objectives (Project Management Institute, 2013). Due to the rise in project management environments, multi-project or strategic PMOs have developed to improve knowledge of project management, manage the performance of one project at a time, and coordinate multiple initiatives (Unger, B. N. et al., 2012). In 2007, 500 PMOs were surveyed (Hobbs and Aubry, 2008). According to Hobbs, B. et al. (2007), they found a lot of

variance and a lack of consensus across the responsibilities and phrases that fit in a PMO's structure.

The earlier PMO research focused on understanding PMOs' different characteristics, roles, and functions. Few studies looked at the typology of PMOs, where typology can be defined as classes by common internal or external characteristics. Other studies looked at the implementation side of the PMO, including key performance indicators and contextual enablers and factors affecting PMO implementation in general. More recently, many large organizations are adopting a multiple PMO approach to implement multiple PMOs in parallel, each with different functions and mandates. It introduced operational complexities in terms of coordination between PMOs. As there is still uncertainty over the PMO structure that best fulfils an organization's actuality, the effective functioning of PMOs continues to be an obstacle for numerous organisations today. There is an ongoing quest to understand PMO success constructs; only a few studies looked at PMO success. It can be challenged that all previous studies on PMO success are contingent on the role, type of the PMO and does not provide a concrete approach to assessing PMO success (Hubbard et al., 2015).

The main findings of two decades of PMO academic research reveal two main facts: (1) PMOs are extremely heterogeneous; they vary in functions, roles, structures, mandate, and they have a very short life span. (2) PMO has very high volatility; they evolve and change constantly.

### **Past Work**

The PMO is defined as "a management structure that standardizes the project-related governance processes and facilitates the sharing of resources, methodologies, tools, and techniques" (PMI, 2013).

The various functions of PMO's include the following, but are not limited to these only:

- Managing resources which are shared by all PMO-managed projects.
- Discovering and establishing best methods, norms, and project management methodologies.
- Supervision, guidance, instruction, and mentorship.

- Using audits of projects to verify that project managers adhere to the regulations, instructions, policies, and standards.
- Designing and sustaining project instructions, rules, templates, and other shared material.
- Coordination & communication across projects.

The authors propose an empirical categorization of PMOs based on project types: engineering and construction, information systems/information technology, business processes, and new product development to renew the classification system of PMOs within the context of organizational design. Their study took a quantitative method with a survey of 114 entities from 42 departments and agencies inside a single public administration. The findings show that our PMO classification system can help PMOs develop their organizational environment, structural characteristics, functions, and performance. They contribute to the field of project management's significance of organizational design.

The PMO is a point of entry into the organization to examine the foundations of organizational project management since it is part of a network of complex relationships that connect strategy, projects, and structures. The researchers suggest that studying such complex organizational interactions requires shifting away from the classic positivist approach and toward a new conceptual framework. Their proposed theoretical framework draws on three complementary fields: innovation, sociology, and organizational theory to build an innovative understanding of the PMO and organizational project management. Today the PMO is an organizational business unit. It was claimed that it was established from the necessity to enhance the organization's ability in the delivery of projects (Aubry et al., 2007).

### **PMO role, function (PMO mandate)**

Project management offices (PMOs) have become an important part of today's project management. However, there is a lack of agreement on several important elements of PMOs. Because the Project Management Institute's (PMI) standards are built on consensus, it is difficult for the

Institute to produce a standard when practitioners disagree. The PMO's mandate may cover all the organization's projects or only a select few. Organizations choose among several possible roles or functions when deciding upon the mandate to give to a PMO.

### **Group 1: Monitoring and Controlling Project Performance**

The essential group of functions is linked to project performance monitoring and Control. This group is responsible for project performance monitoring, Control, reporting, and the management of the computer-based tools used to conduct these duties. Managers need this information to maintain visibility and govern the performance of projects they are responsible for, and PMOs with these responsibilities provide it. The PMO is assisting project governance functions in this way. We previously discussed the interrelationship of these functions (Hobbs, J. B. (2007)):

- Report project status to upper management.
- Monitor and control project performance.
- Implement and operate a project information system.
- Develop and maintain a project scoreboard.

### **Group 2: Development of Project Management Competencies and Methodologies**

Functions related to tools and processes and competency development are among the most historically associated with PMOs. The following functions make up this group (Hobbs, J. B. (2007)):

- Develop and implement a standard methodology.
- Promote project management within the organization.
- Develop competency of personnel, including organizing through training.
- Provide mentoring for project managers.
- Provide a set of tools without an effort to standardize.

### **Group 3: Multi-Project Management**

Some PMOs are tasked with managing large groups of projects in a coordinated manner. Program or portfolio management is frequently used to manage large groups of projects. As evidenced by the identification of project, program, and portfolio domains in OPM3® and the

publishing by PMI of program and portfolio management standards in 2006, these have become major parts of project management. As can be observed from the functions in this group, coordination of interdependencies across programs and portfolios is a major challenge in multi-project management (Hobbs, J. B. (2007)):

- Coordinate between projects.
- Identify, select, and prioritize new projects.
- Manage one or more portfolios.
- Manage one or more programs.
- Allocate resources between projects.

#### **Group 4: Strategic Management**

In recent years, project management in general, and PMOs in particular, have become increasingly concerned with strategic alignment issues and more tightly related to high command. The factor analysis found that one of the underlying characteristics of PMO jobs is a group of functions connected to strategic management (Hobbs, J. B. (2007)):

- Provide advice to upper management.
- Participate in strategic planning.
- Manage benefits.
- Conduct networking and environmental scanning.

#### **Classification and networks (Typology, Topology, Multiple PMOs)**

"A method for grouping things based on how they are similar; the study of how things can be divided into different types [or models]; the study of analysis or classification based on types or categories," according to the dictionary (DM, 2014).

A PMO Model is an organizational framework based on project management and operational business management that provides a coherent and supporting narrative for a PMO. We may use it to characterize and classify various PMO organizations. An organization can then use it as the foundation for organizational development when developing new organizational structures or changing existing organizational structures to drive and create commercial value (Hubbard & Bolles, 2015).

Several scholars created distinct typologies of PMO based

on Mintzberg's (1979) concept of organizational structure typologies. These typologies, which model back, simplify and reduce reality, are beneficial in research and study (Hobbs & Aubry, 2007).

The diversity of PMOs in businesses and a lack of consensus on their structure and functions have complicated the creation, configuration, and management of PMOs, making universal identification of a typology impossible (Hobbs & Aubry, 2008).

The majority of extant typologies are based on a combination of PMO's functions and power. Each typology contrasts functions with power and their placement in the organizational structure, organized in steps based on the degree of responsibility. The model chosen is decided by the nature of the projects and the level of organizational project management maturity (Verzuh, 2005).

#### **PMO transformation**

The author aims to better understand organizational change by looking at the transformations of project management offices (PMOs). In this research, the organizational context, change management, and changes in coordination mechanisms control or service orientation appear to influence the performance of a PMO transformation. They have used a sample of 184 PMO modifications in this exploratory investigation, which used a quantitative methodology. It emphasizes the complex character of the context in which a PMO transition occurs. Change is sparked by external events, which play an important role in increasing performance. Their findings imply that increasing the PMO's supportive role increases project, business, and project management maturity. Increasing the PMO's control role, on the other hand, does not affect performance. Their main contribution is to provide empirical evidence on organizational change management (Aubry, M. (2015)).

The authors focus on the project management office's (PMO) role in organizational performance. They delve into the specific case of a project management office (PMO) overseeing a major organizational reform at a Canadian university hospital. The national government has ordered hospitals to adopt strong governance procedures to tight

grip their budgets. In this situation, how can the performance of the PMO be measured? The authors used a competing values framework to examine the perceptions of two different groups, allowing for the mixing of four different performance conceptions. Their findings highlight some commonalities in the barriers to PMO success. However, they also reveal a dichotomy in what is valued in PMO performance across the two groups (Aubry, M. et al., 2011).

### Success Definition

In the field of project management, success has been researched frequently: critical success factors for projects (Pinto & Prescott, 1988; Westerveld, 2003), development over time (de Bakker, Boonstra, & Wortmann, 2010; Ika, 2009; Jugdev & Müller, 2005), the impact of project managers (Müller & Turner, 2007), leadership styles of project managers (Müller & Turner, 2010), knowledge management in temporary organizations (Lindner & Wald, 2011) and contextual factors (Müller & Jugdev, 2012).

According to Jugdev & Müller (2005), the success measurement of projects has evolved. First concentrating on the pure implementation phase, critical success factors and frameworks became popular until the year 2000, nowadays being replaced by strategic project management covering all project phases and going beyond them. They propose a good relationship with stakeholders and measure effectiveness and efficiency over time (Jugdev & Müller, 2005). Kutsch et al. (2015) suggest that PMO success depends on the satisfaction of their service users, e.g., project managers. Another important finding is reflected in the fact that project success rates differ by industry and project complexity (Müller & Turner, 2007) which may have an impact on the work of PMOs as well. Also, in the field of success, overlapping and interchangeably used terms can be found, which is why Munns & Bjeirmi (1996) propose to differentiate between project success and project management success in line with Ika (2009), who warn not to confuse the two perspectives and recommend a shift towards the project, portfolio, and program success as a whole highlighting that some industries provide a higher emphasis on portfolio and program management.

### PMO success

The analysis of PMO-related success literature shows no clear definition for PMO success to be found in current literature; further assessments are needed to investigate how PMO success could be defined and measured within an organization. Therefore, to better understand PMOs in terms of service offerings and maximum potential benefit, it is important to know how they relate to PMO success. The authors looked at the design of PMO and its service offerings within multiple domains of Control, influence, and concern within the organization. Then, the authors proposed a framework that incorporates components identified in the literature review and attempted to define the PMO success through the control sphere perspective.

Since less work is done on PMO success, e.g., project success, further insights are needed to investigate how PMO success could be defined. Therefore, a closer look into PMO-related success is required to better understand PMOs in terms of performance, value and benefit, and how they are related to PMO success. To help gain insights into how PMO success could define the authors looked at the meaning and construct of project success and project management success, then compared it to the area of PMOs.

The authors give a meta-analysis of empirical evidence that supports or refutes the premise that risk management helps IT projects succeed. In addition, the validity of the assumptions that risk management is built on is investigated by them. They investigated that the previous ten years much has been learned about what causes IT initiatives to fail. However, there is currently a scarcity of empirical evidence that this information is being used for IT project risk management. As a future scope, they have suggested a few areas in risk management and project success. Stakeholder perceptions of risk and success and stakeholder behavior in the risk management process are important factors (de Bakker et al., 2010).

The researchers have examined the importance of project critical success elements changed throughout four stages in the project life cycle. They collected survey responses from 408 project managers or project team members who are currently working on a project for doing the analysis. They find that the first ten key success criteria were subjected to

ridge regression analysis, which resulted in the final Number of crucial success factors being reduced to eight. The important success criteria at each of the four stages of the project life cycle were then subjected to stepwise regression analysis. Their findings revealed that the relative relevance of various essential elements varies dramatically depending on the life cycle stage (Pinto & Prescott, 1988) (Westerveld, 2003).

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Leadership as a precondition for project success is the unit of analysis of (Müller & Turner, 2010), whose findings support that the success of project managers' leadership

competency profiles depends on the type of projects. It indicates that PMOs in charge of project management-related activities might have to adapt leadership style and development according to the specific organizational and project context as contingency theory suggests (Müller & Turner, 2010).

Researchers aim to identify knowledge management success elements in temporary businesses. They use the partial least square (PLS) method to examine the influence of cultural, organizational, structural, and process-related factors on knowledge management efficacy using a cross-industry sample of 414 businesses. Their findings lead to a more diversified understanding of project knowledge management. (Lindner & Wald, 2011).

The researcher provides an interesting contribution about PMOs and project success, who discover a reduced understanding and tolerance of line managers in case of project failure once PMOs are in place. PMOs are expected to clarify project success criteria and high awareness of problems to de-escalate problematic situations. If this is missing, it leads to a lack of satisfaction by management staff. They suggest involving PMOs and all phases of the project, concentrating on reviewing benefits and changes and the monitoring process (J. Ward & Daniel, 2013). Their study employs an exploratory survey method to investigate the impact of a PMO's presence and the PMO's involvement in five key project life-cycle practices on project success and manager satisfaction. Surprisingly, the inclusion of a PMO is found to decrease senior management satisfaction with IS initiatives while having little effect on the overall success rates of those projects. To explain this conclusion, they use escalation of commitment theories.

The researchers propose a framework for quality improvement implementation in a management system, including essential concerns important to middle managers regarding their proactive involvement in QI. Consequently, (Jonas 2010) raises how far empowerment, role significance and role clarity contribute to portfolio management success, a function PMOs might be offering. They show that encouragement and empowerment positively influence portfolio management roles. In contrast, intervention is likely to impact task execution and portfolio management success negatively.

## Conceptual Framework

The terms organizational project management and associated ideas such as strategic alignment, project-based organization, and project management office (PMO) have been defined. We have discussed our overall strategy of focusing on the PMO. We are currently looking for a theoretical framework to accommodate the subject's intricacy and depth. The PMO is a dynamically produced entity, according to our constructivist ontology. The social innovation system, network theory, and organizational performance are three theoretical domains that have been mobilized to contribute to the understanding of the PMO.

### Social innovation system

The authors have stated that innovation is critical to establishing multi-project environments. Innovation theorists have taken the social system dimension of innovation into account throughout the last two decades (Hughes PT, 1987). Organizations do not just pop up out of nowhere. They are a part of many complex interconnected systems, such as the social system, economic system in which history plays a dynamic role. The PMO is viewed as a manufactured entity that is a component of a social innovation system in this case. Taking this technique will give the PMO an entirely new perspective. Rather than creating an ad hoc image, we will track the evolution of this entity in tandem with that of its parental organization, as shown in Fig 1.

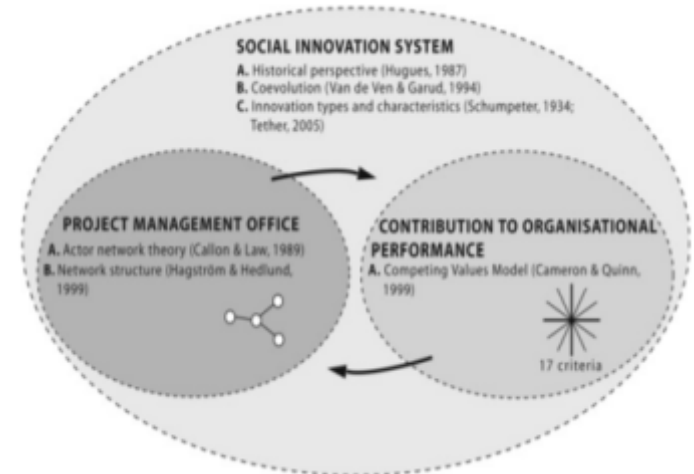
### The place of the project management office in the conceptual framework

The current empirical research aims to understand the PMO and its impact on organizational performance. We have already placed it into the social innovation system without looking at the PMO. Here, we present a theoretical foundation for describing the PMO. The PMO is handled here as a term that allows us to break down walls and restrictions in the actual view of the PMO's reality and provide new perspectives on this component of organizational project management.

The PMO is one of the dynamic structures within organizational project management from a conceptual standpoint.

## Organizational contribution of the PMO

In Literature Review earlier, we have seen that the issue of performance is quite important. Performance is a dependent variable arising from the PMO structural choice in a positivist approach (Kendall GI, 2003). It is predicated on the notion that only one best PMO structure produces the best results that we can measure in terms of ROI. The PMO and its organizational contribution are built up jointly during their evolution in a constructivist method. Rather than treating the PMO's organizational contribution as a single dependent variable, we decided to incorporate it as a notion characterizing the PMO.



**Fig. 1. Organizational project management: a conceptual framework (Kendall GI, 2003).**

The PMO is part of a network of complex relations that links strategy, projects and structures and thus is a point of entry into the organization to study the foundations of organizational project management. We argue that studying such complex relationships within an organization should turn from the traditional positivist approach to a new conceptual framework. The proposed theoretical framework draws from three complementary fields – innovation, sociology, and organizational theory – to form an innovative understanding of the PMO and organizational project management.

## Research Methodology

The research method has focused on a systematic literature review of the academic and non-academic literature. A

comprehensive search of the literature was conducted, emphasizing various project management associations and their publications concerning PMO. The study intends to develop a breakthrough on the understanding of PMO success defined through the sphere of control perspective that can be applied to initiative specific and organizational PMOs and is agnostic to all PMO types.

A structured closed-ended questionnaire was designed to capture the data on our defined framework's relative importance towards PMO success. We collected the questionnaire response from 113 respondents from different levels of PMO's experts' persons. These respondents were knowledgeable about the majority working directly with PMOs in their respective organizations with over 20 years of experience. Additionally, the reliability of the study and the associated PMO success scales will be analysed. The individual scales as guided by the 7-point Linkert scale. To this end, information about the PMO success scales and culture attributes will be analysed to understand the concept of PMO. We will further analyse the constructs of PMO success scales such as achievement of maximum benefit within mandated service, achievement of maximum potential benefit of PMO, achievement of PMO optimal service offerings, improved project delivery, and associated information. It will also help in identifying the impact & correlation between the influence variables over the control variables to validate the PMO success scales & model.

### Proposed Framework

The new framework defines PMO success as achieving maximum potential benefit within the domain of control and influence and considering what the PMO controls and the PMO's domain of influence. The greater the PMO domain of influence, the potential benefits it can deliver in terms of services. To better understand how the terms PMO maximum potential benefit, PMO domain of Control and influence and PMO Success are related and how they should be applied to the realm of PMOs, a framework was created and is shown in figure 1.

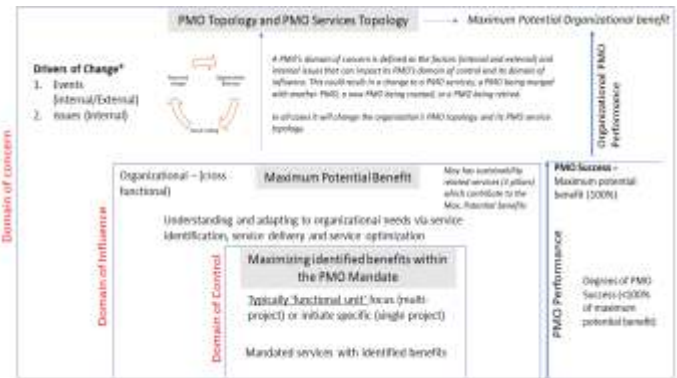


Fig 2: Conceptual Framework (Aubry, M et al., 2010)

Figure 2 depicts the conceptual framework model for PMO success. PMO success is defined as achieving the maximum potential benefit within the domain of Control and domain of influence. Maximum potential benefits are the maximum benefits within the PMO's domain of Control and the PMO's domain of Influence. It is therefore applied to both domains of Control and influence. The maximum potential benefit within the domain of Control can be achieved by meeting the mandated services, addressing problem areas and applying continuous improvement to ensure PMO runs efficiently. It cannot be assumed that PMOs are always meeting their mandate. There are usually missed opportunities within the domain control (mandated area) in practice. While the maximum potential within the PMO is defined as achieving the maximum potential benefit domain of influence, Figure 2 further explains the concept of Maximum potential benefit within the domain of Control and domain of influence.

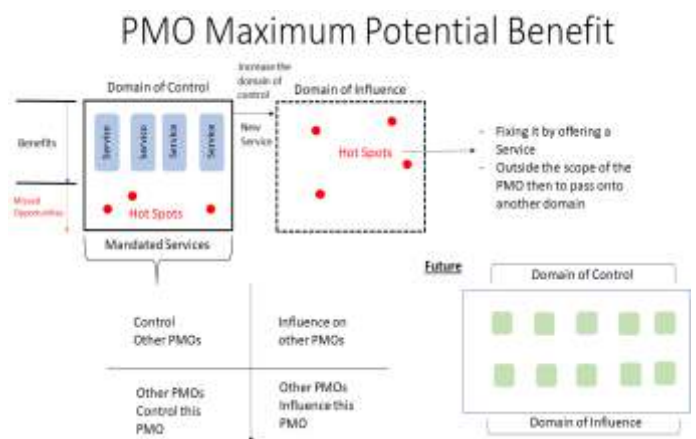


Fig 3: Proposed Framework



The maximum potential benefit can be achieved when the Control domain equals the domain of influence. The proposed framework is shown in Fig 3.

## Findings

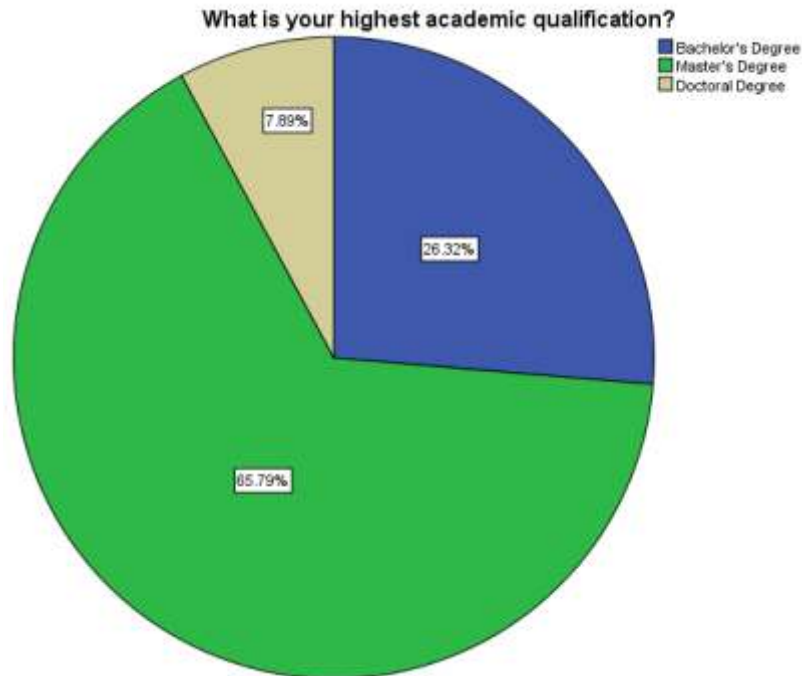
### Personal Information

#### Academic qualifications

As evident in the table and figure below, the majority of the respondents had a Master's degree (65.79%), followed by Bachelor's degree (26.32%), and lastly Doctoral degree (7.89%). Generally, this is an indication of being learned by the respondents.

**Table 1 : Academic qualification**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor's Degree	20	26.3	26.3	26.3
	Master's Degree	50	65.8	65.8	92.1
	Doctoral Degree	6	7.9	7.9	100.0
	Total	76	100.0	100.0	



**Fig 4: Academic qualification**

### Nationality

Regarding the nationality status, as shown in the table and figure below, most of the respondents (31.58%) were Qatari nationals.

**Table 2 : Nationality**

		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	Algeria	1	1.3	1.3	1.3
	Australia	1	1.3	1.3	2.6
	Bahrain	2	2.6	2.6	5.3
	Bosnia & Herzegovina	1	1.3	1.3	6.6
	Canada	3	3.9	3.9	10.5
	Dominica	1	1.3	1.3	11.8
	Egypt	2	2.6	2.6	14.5
	France	3	3.9	3.9	18.4
	Guinea	1	1.3	1.3	19.7
	India	3	3.9	3.9	23.7
	Iran	1	1.3	1.3	25.0
	Ireland	1	1.3	1.3	26.3
	Italy	1	1.3	1.3	27.6
	Jordan	2	2.6	2.6	30.3
	Lebanon	5	6.6	6.6	36.8
	N/A	2	2.6	2.6	39.5
	Pakistan	3	3.9	3.9	43.4
	Philippines	3	3.9	3.9	47.4
	Qatar	24	31.6	31.6	78.9
	Saudi Arabia	3	3.9	3.9	82.9
	Sri-Lanka	5	6.6	6.6	89.5
	Syria	1	1.3	1.3	90.8
	Turkey	2	2.6	2.6	93.4
U.K	2	2.6	2.6	96.1	
U.S.A	1	1.3	1.3	97.4	
UAE	1	1.3	1.3	98.7	
Ukraine	1	1.3	1.3	100.0	
Total	76	100.0	100.0		



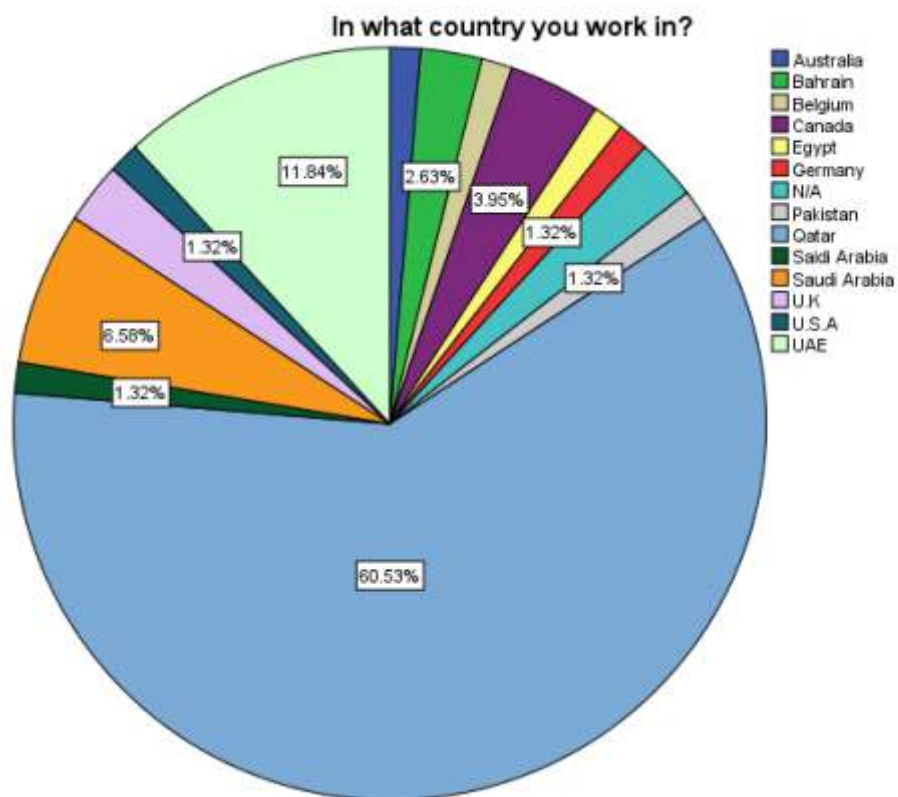


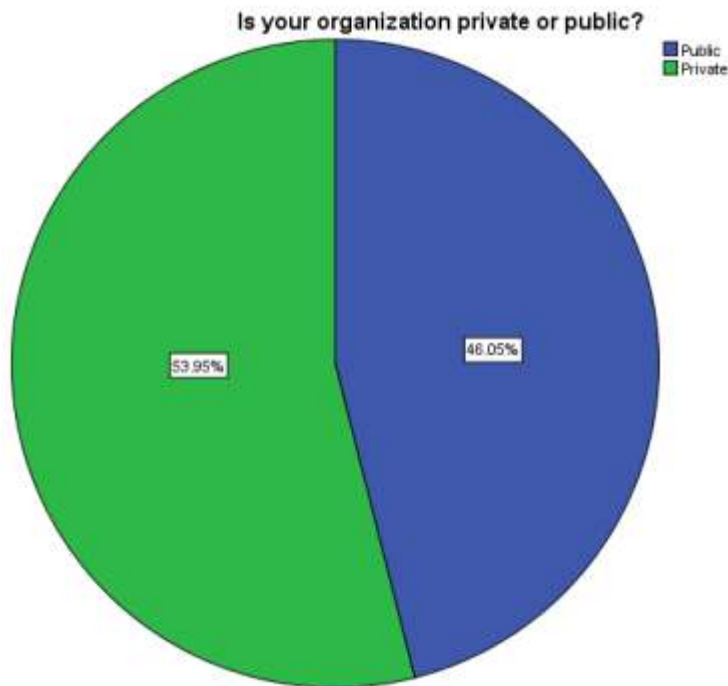
Fig 6: Country of work

### Organisational type

Most of the respondents (53.95%) worked in the private sector. The remaining 46.05% were in the public sector, as evident in the table and figure below.

Table 4 : Type of organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public	35	46.1	46.1	46.1
	Private	41	53.9	53.9	100.0
	Total	76	100.0	100.0	



**Fig 7: Type of organization**

**Sector**

Regarding the field of work, most of the respondents (36.84%) were from the construction industry, followed by education (27.63%), then oil & gas (21.05%), and lastly, financial services and banking (14.47%).

**Table 5 : Sectorial analysis**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Oil & Gas	16	21.1	21.1	21.1
	Construction	28	36.8	36.8	57.9
	Financial Services & Banking	11	14.5	14.5	72.4
	Education	21	27.6	27.6	100.0
	Total	76	100.0	100.0	

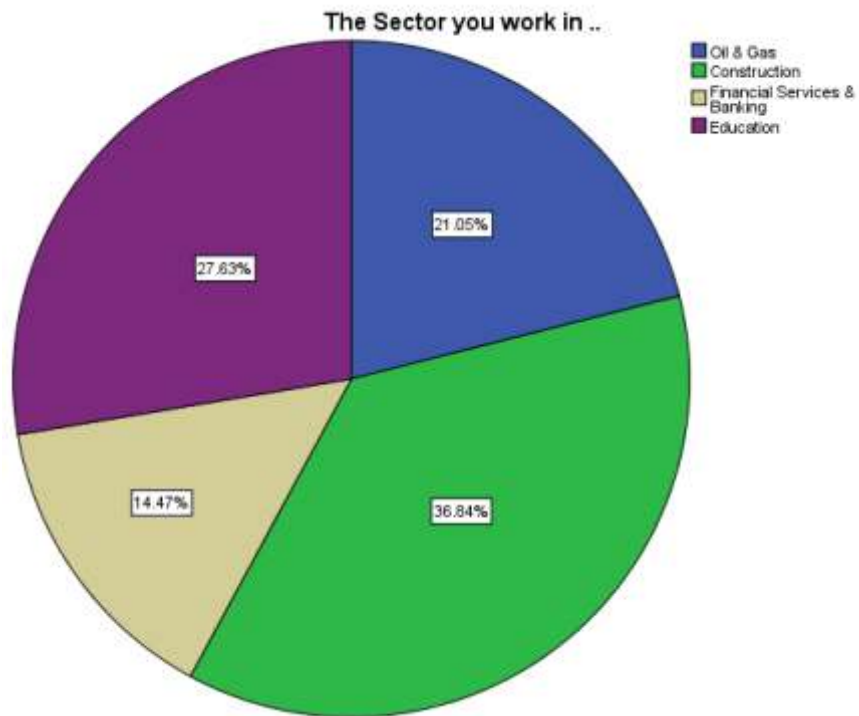


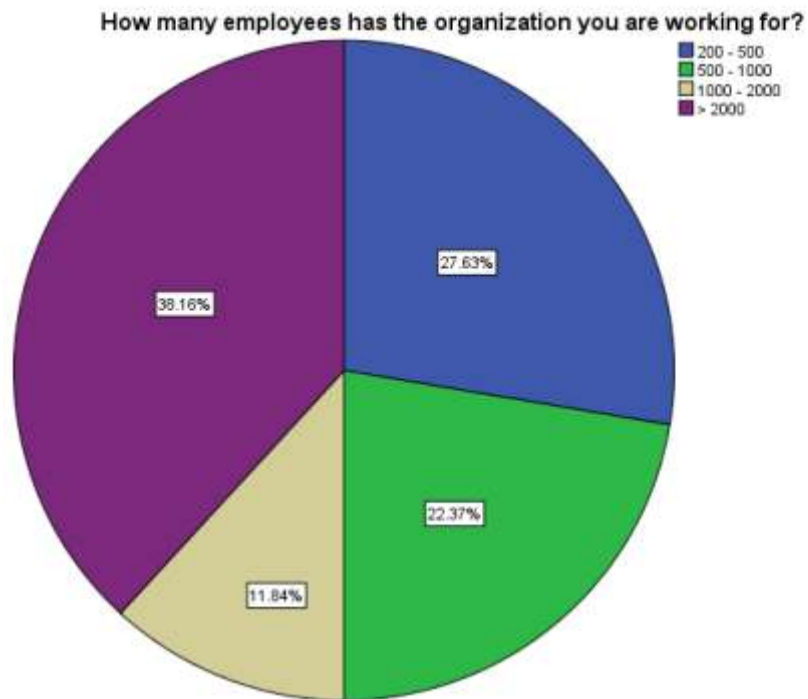
Fig 8: Sectorial analysis

### Number of employees

Most of the respondents highlighted that they work in organizations with more than 2000 employees, represented by 38.16%. In contrast, the least representation (11.84%) was from those working in organizations having between 1000 and 2000 employees.

Table 6 : Number of employees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	200 - 500	21	27.6	27.6	27.6
	500 - 1000	17	22.4	22.4	50.0
	1000 - 2000	9	11.8	11.8	61.8
	> 2000	29	38.2	38.2	100.0
	Total	76	100.0	100.0	



**Fig 9: Number of employees**

### PMOs in the organization

Most of the respondents (46.05%), as indicated in the table and figure below, had their organizations having between 2 and 5 PMOs. The least representation (22.37%) indicated that their organizations have above 5 PMOs.

**Table 7 : PMOs in the organization**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	24	31.6	31.6	31.6
	2 - 5	35	46.1	46.1	77.6
	> 5	17	22.4	22.4	100.0
	Total	76	100.0	100.0	

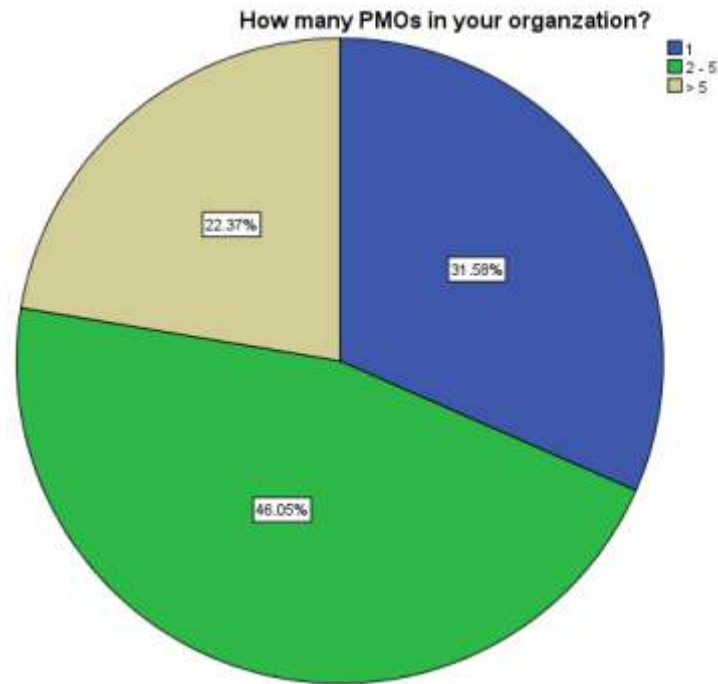


Fig 10: PMOs in the organization

### Direct working with PMO in the organization

Most of the respondents (80.26%) had worked directly with PMO in their organizations compared to 19.74% who had not worked directly with PMO.

Table 8 : Direct working with PMO in the organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	61	80.3	80.3	80.3
	No	15	19.7	19.7	100.0
	Total	76	100.0	100.0	



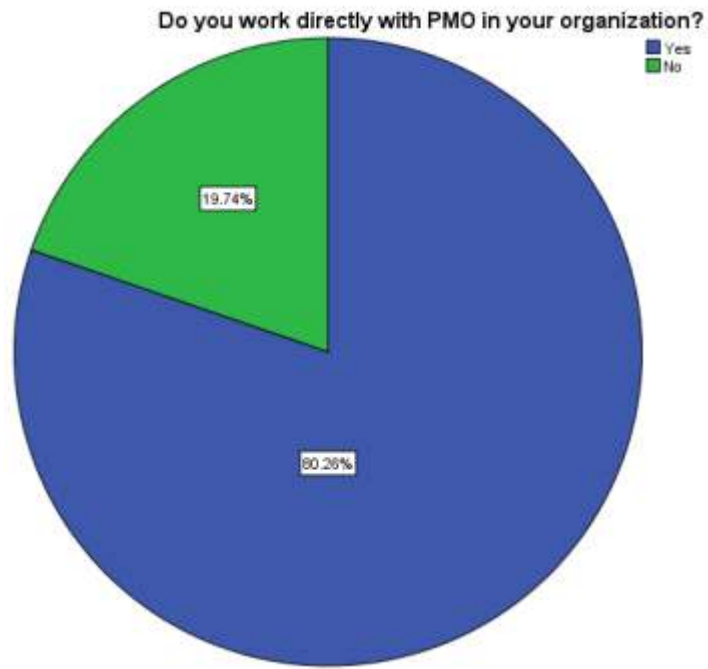


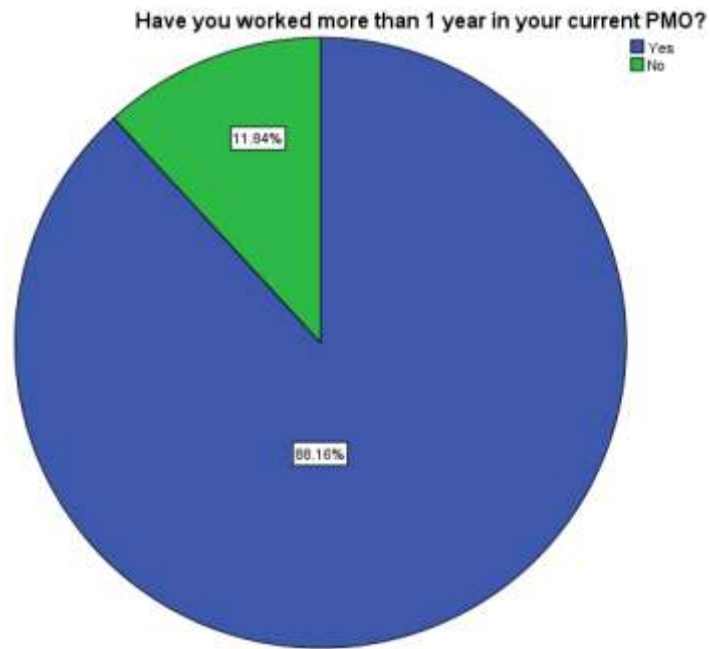
Fig 11: Direct working with PMO in the organization

**More than a year working in PMO**

Consequently, 88.16% of the respondents had worked more than a year in their current PMOs compared to 11.84% who had not.

**Table 9 : More than a year working in PMO**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	67	88.2	88.2	88.2
	No	9	11.8	11.8	100.0
	Total	76	100.0	100.0	



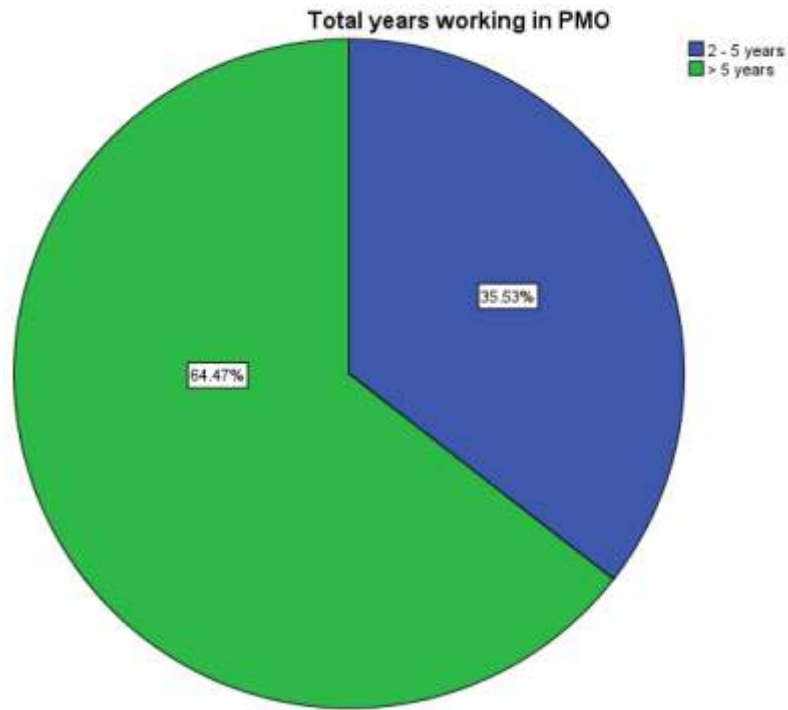
**Fig 12: More than a year working in PMO**

**Number of years working in PMO**

Specifically, most of the respondents (64.47%) had over 5 years of experience working in PMO compared to the 35.53% representation who had worked between 2 and 5 years.

**Table 10 :Number of years working in PMO**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2 - 5 years	27	35.5	35.5	35.5
	> 5 years	49	64.5	64.5	100.0
	Total	76	100.0	100.0	



**Fig 13: Number of years working in PMO**

**Overall professional experience**

Generally, most of the respondents (44.74%) had over 20 years' working experience compared to those who had worked between 5 and 10 years and 15 and 20 years (i.e., least representation each represented by 17.11%).

**Table 11 :The overall professional experience**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5 - 10 years	13	17.1	17.1	17.1
	10 - 15 years	16	21.1	21.1	38.2
	15 - 20 years	13	17.1	17.1	55.3
	20 years and above	34	44.7	44.7	100.0
	Total	76	100.0	100.0	

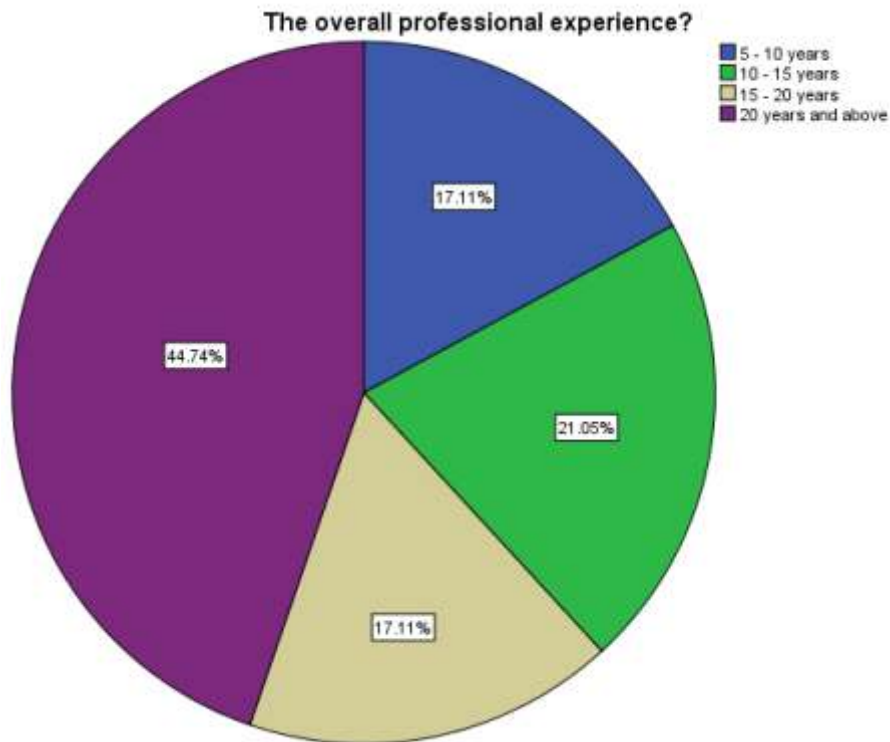


Fig 14: The overall professional experience

**PMO Success Scales**

**Reliability analysis**

The scales used were reliable and valid, with Cronbach's Alpha coefficients above the minimum threshold of 0.7, as shown below. In particular, "Achievement of maximum benefit" had a score of 0.77; "Achievement of maximum potential benefit" and "Achievement of PMO optimal service" each had a score of 0.86. Lastly, the highest score (0.86) was by the "Improved Project Delivery" scale.

**Table 12 : Reliability analysis**

Variable	Cronbach's Alpha
Achievement of maximum benefit (C1)	0.77
Achievement of maximum potential benefit (C2)	0.86
Achievement of PMO optimal service (C3)	0.86
Improved Project Delivery (C4)	0.86

## Correlation

The PMO success scales were, generally, found to have an averagely high correlation among the variables. The high positive Pearson's Correlation coefficients indicate a strong linear relationship between the influence and control variables.

**Table 13 : Correlation analysis**

		<b>C1total</b>	<b>C2total</b>	<b>C3total</b>	<b>C41total</b>	<b>C42total</b>
C1total	Pearson Correlation	1	.504**	.490**	.477**	.492**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	76	76	76	76	76
C2total	Pearson Correlation	.504**	1	.736**	.638**	.748**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	76	76	76	76	76
C3total	Pearson Correlation	.490**	.736**	1	.626**	.735**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	76	76	76	76	76
C41total	Pearson Correlation	.477**	.638**	.626**	1	.644**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	76	76	76	76	76
C42total	Pearson Correlation	.492**	.748**	.735**	.644**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	76	76	76	76	76

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Regression Analysis

Regression between the PMO culture attributes and success scales (table below) indicated a positive relationship with considerably high R values at high significant levels ( $p < 0.05$ ). It is an indication that PMOs effectively achieve their goals by being proactive and supportive, as shown in the figure below.

**Table 14 : Regression analysis**

<b>Variable</b>	<b>df</b>	<b>R</b>	<b>F</b>	<b>p</b>
Achievement of maximum benefit with in mandated service (C1)	3,72	0.56	8.16	0.00
Achievement of maximum potential benefit of PMO (C2)	3,72	0.81	34.09	0.00
Achievement of PMO Optimal Service Offerings (C3)	3,72	0.80	32.20	0.00
Improved Project Delivery (C4)	3,72	0.69	22.04	0.00



differences between PMOs and is agnostic to all PMO types. It can also be applied to both single PMO and multiple PMOs. The framework defines PMO success by introducing the concept of maximum potential benefit. The maximum potential benefit is defined at three different spheres, which the authors conceptualized for PMOs' operational environment. The authors define three spheres, the sphere of Control, the sphere of influence and the sphere of concern.

Further, we have validated our framework by analysing the collection of 113 Responses from different experts in PMO via a Questionnaire Survey. These responses were analysed using the SPSS Data analysis tool. Hence, the proposed framework of studying and understanding PMO in cultural attributes and success factors in an organization's implementation is validated.

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