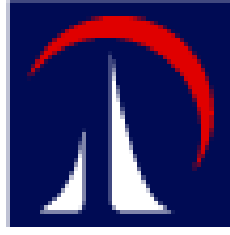


الجامعة
البريطانية في
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The
British University
in Dubai

**MAJOR CHALLENGES TO THE SUCCESSFUL
IMPLEMENTATION AND PRACTICE OF PMO IN
THE UAE GOVERNMENT ORGANIZATIONS**

التحديات الرئيسية للممارسات الناجحة
لمكاتب إدارة المشاريع في الدوائر الحكومية في
دولة الإمارات العربية المتحدة

By

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ABSTRACT

This paper investigates PMO challenges, PMO effectiveness and PMO maturity level in a number of UAE government organizations. Government organizations are usually challenged by structure and complexity issues, how to run and manage their processes, technological inefficiencies and other emerging situations. The challenges ultimately affect PMO effectiveness. The study aims at analyzing the concept of PMO and the restructuring they bring in their implementation, examine PMO effectiveness, identify the challenges as well as the degree to which these challenges affect PMO effectiveness. The paper also presents the interrelationship between these three variables namely PMO challenges, maturity level and effectiveness. The research was conducted with a sample of 69 respondents who are members of staff selected from 24 different government organizations. Findings from the study suggest that PMO maturity level not only affects PMO effectiveness, but also the extent to which the PMO is able to deal with arising PMO challenges. The theoretical framework used to conduct the study was that PMO maturity level, PMO challenges as well as PMO effectiveness are correlated. The study found that all three variables are interrelated, with PMO maturity level affecting PMO effectiveness as well as its ability to effectively deal with emerging challenges. The findings of this study are particularly useful to organizations that are planning to start a PMO as a managerial strategy, as well as those that are already started but face numerous challenges that impede their effectiveness. From the findings of this study, it is recommended that in setting up PMOs, organizations should not only consider organization goals, but also the resources that are available to achieve these goals. Resources mean implementation of good technology, acquiring highly qualified staff that will be able to create benefits for the entire organization.

تناقش الورقة التحديات التي تواجه مكاتب إدارة المشاريع و مستوى فعاليتها و نضجها في إدارة المشاريع في عدد من الدوائر الحكومية في دولة الإمارات العربية المتحدة. تتعرض الدوائر الحكومية عادة للتحديات المتعلقة بهيكله

الدائرة و القضايا الأخرى, و كيفية تشغيل و إدارة عملياتها, وعدم الكفاءة التكنولوجية و غيرها من الحالات الناشئة. وهذه التحديات تؤثر على فعالية مكاتب إدارة المشاريع. وتهدف الدراسة إلى تحليل مفهوم مكتب إدارة المشاريع و إعادة الهيكلة و آلية تنفيذها, و دراسة فعالية مكتب إدارة المشاريع, و تحديد التحديات فضلا عن الدرجة التي تؤثر على فعالية مكاتب إدارة المشاريع. و تعرض الورقة العلاقة بين المتغيرات الثلاثة: التحديات التي تواجه مكاتب إدارة المشاريع و مستوى فعاليتها و نضجها في إدارة المشاريع. و قد أجري البحث على 24 دائرة حكومية مختلفة و 69 موظفا في مكاتب إدارة المشاريع . و تقترح نتائج البحث إلى أن مستوى نضج مكاتب إدارة المشاريع لا تتأثر فقط بمستوى فعالية المكتب بل أيضا تمتد إلى قدرة مكاتب إدارة المشاريع على التعامل مع التحديات. الإطار النظري الذي أستخدم لإجراء الدراسة تشير إلى أن التحديات التي تواجه مكاتب إدارة المشاريع و مستوى فعاليتها و نضجها في إدارة المشاريع جميعها مترابطة بفعالية. ونتائج الدراسة تفيد بشكل خاص للدوائر الحكومية التي تخطط لبدء تأسيس مكتب إدارة المشاريع ضمن استراتيجيتها الجديدة بالإضافة إلى التي أسست مكاتب إدارة المشاريع و لكن تواجهها العديد من التحديات التي تعوق فعاليتها. فمن المقترح للدوائر الحكومية عند تأسيس مكاتب إدارة المشاريع عدم التركيز فقط على أهداف الدائرة الحكومية بل أيضا توفير الموارد لتحقيق الأهداف المرجوة. والموارد تعني تطبيق أفضل التقنيات والبحث عن الموظفين ذوي الكفاءة العالية التي من شأنها أن تكون قادرة على خلق منافع و فوائد للدائرة الحكومية بأسرها .

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ATTESTATION

I understand the nature of plagiarism, and I am aware of the University's policy on this .I certify that this dissertation reports original work by me during my University project except for the survey it is a combination of three surveys, which was developed by the following:

- The continued Evolution of the Project, Program and Portfolio Management Office (PMO) conducted by Terry Deorscher- Chief Process Architect Planview, Inc. Planview (2008).
- The Multi Project PMO : A Global Analysis of the Current State of Practice. A White Paper prepared for Project Management Institute by Dr. Brian Hobbs- university of Quebec at Montreal , Quebec, Canada, Project Management Institute (2007).
- PMO status Middle East conducted in May 2010 By Mr. Muneer Ajam CEO of SUKAD SUKAD Survey (2010).

Signature

Date

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LIST OF ABBREVIATIONS

PMO: Project Management Office

GDP: Gross Domestic Product

EPMO: Enterprise Program Management Office

BPMO: Business Project Management Office

PtPMO: Portfolio Project Management Office

PgPMO: Program Project Management Office

PPMO: Project PMO

PMI: Project Management Institute

Prince 2: Projects in Controlled Environment

OPM3: Organizational Project Management Maturity

PMBOK: Project Management Book

SMEs: Small and Medium size Enterprises

CHAPTER 1 :

INTRODUCTION

"One of the greatest challenges for all is the realization that the present business world is very complex, that we are all under this situation, making it very difficult for all to determine the priorities and loyalties".

Scott Bakula

I. Background of the problem

Governmental organizations are normally faced with several challenges that emanate from their structure and complexity, nature of running processes, technological advancements and changing situations. These challenges grossly affect the performance of PMOs, lowering their effectiveness and ability to deliver the broad range of services under their docket.

An effective PMO is expected to spearhead process improvements and facilitate strategic planning. It is supposed to aid in the management of intellectual assets, offer IT service together with application and product management. It is also useful in budgeting and other business functions that ensure successful completion of projects. However, these expectations are hardly met due to challenges that manifest during one or more stages of its development. It is not uncommon to find projects running out of schedule, multiple projects overlapping, abandoned projects and wastage of resources among other aspects of poor project planning and management.

Government projects are controlled by several ministries and departments with different goals and priorities. They vary in scope and complexity drawing on a large pool of intellectual and financial resources. In most cases, these projects are not monitored from a central point. Instead, the tasks are delegated to consultants and employees who often multitask as they carry out their regular duties. In other instances, the projects are isolated and run departmentally with functional managers struggling to push their projects through while paying little or no attention to other programs within the entire system. Under such circumstances, the projects are poorly coordinated and not properly aligned to the organization's strategic plan.

While a PMO may last for a short duration, it needs to demonstrate the ability to create value before it is shut down or reconfigured prematurely. It is worth-noting that the rate at which PMOs are being created is significantly high, but often characterized by low levels of sustainability because of the numerous challenges that have to be dealt with (Pellegrinelli & Garagna, 2008) . Since the initiation stage comes at a time when there may be inadequate knowledge and resources directed towards the same cause, a closer study of PMOs is important in order to assess and characterize challenges associated with this stage (Alvarez, 2008).

II. Statement of the problem

Every government has the mandate to plan, implement, support and manage various projects for the good of its citizens. These projects span a wide range of industries, which include but not limited to finance, insurance, healthcare, product development, information technology, consulting, telecommunications, social amenities, engineering services and government agencies. Since the government operates as one unit, these industries together with the projects associated with them are interdependent and rely on one another for resources (Kendall, 2002). Depending on the prevailing government policies and regulations, many issues are likely to arise due to scarcity of resources, vested political interests, technological advancements, information flow and communication structures, and socio-economic challenges among other constraints.

PMOs assume a significant role in managing and coordinating projects under such environments. While their development has been rapid, their failure, reconfiguration and restructuring have been more pronounced. Most of them have been shut down before the completion of projects or significantly changed in order to meet the complexity and dynamic nature of emerging projects (Hobbs, 2008). This scenario is most likely to be prevalent within organizational settings where projects are complex, resources are limited or the PMO is in its early developmental stages. In other instances, the PMO could be completely lacking, informal or undefined. Under such circumstances, PMOs fails due to operational challenges that are difficult to overcome during the initiation stage when strategies may not be well defined and goals not very clear. Even where objectives are clear, the PMO may remain challenged due to a heavy resource demand arising from the magnitude of complex projects and inadequate preparation.

III. Research Question

“What will be the potential challenges in government organizations that try to establish a PMO for first time?”

IV. Purpose Statement and Objective of the Study

The study will identify the flaws and drawbacks associated with restructuring, PMO complexity, monitoring and tracking and external dependences. PMOs. Such external dependencies include the need for compliance, mandates, existing PMO procedures and government regulation. It aims at answering the following questions:

- Analyze the entire concept of PMO and the change of implementation of PMO in government organization.
- Examine PMO effectiveness, based on internal and external factors.
- Identify the challenges associated with the initiation stage of PMOs in government organizations
- Identify the extent to which PMO challenges influence PMO maturity levels and PMO effectiveness.

V. Significance of this study

In order to be effective, PMOs need to have some significant measure of control and authority. This implies that they need to have a measure of control over the project managers, sponsors and be able to challenge business proposals that are deemed ineffective. PMOs are often challenged by major setbacks that are rooted in operational methodologies, internal and external politics as well as available resources and how these are utilized. This presents the importance of this study, in stabling the major challenges that are faced by PMOs, and how these can be countered to make PMOs more effective. As such, the study is significant as it is aimed at identifying major PMO challenges, that if addressed, will enable both Government and Business PMOs to realize their objectives much faster.

VI. Theoretical Framework

In order to understand the challenges that influence PMO operations, it is important to embrace the framework under which PMOs operate. In this study, the performance appraisal of PMOs is based on process maturity, level of PMO effectiveness and the ability to manage challenges that crop up in the course of its general life cycle, especially during the initiation stage. These three parameters are closely linked to each other. As far as maturity level is concerned, business processes can be informal or unidentified, defined but not well adopted, repeatable and followed, well aligned, measurable, optimized and continuously improved.

A PMO is considered effective when it is continuously expanding its capabilities and scope, meeting its objectives with organizational support and active sponsorship. Operational performance is also considered effective when it is continuously expanding its capabilities and scope, meeting its objectives with organizational support and actively sponsored. Figure 1 illustrates the theoretical framework (Reference: Plainview – 2008 –Survey).



The study finds that PMO effectiveness, process maturity level, and ability to manage operational challenges are definitively linked.

Figure1:Theoretical framework, (Plainview – 2008 –Survey)

The study relies on questionnaires to seek information on PMOs with respect to these three parameters and analyzes information related to the characteristics and trends of prevailing challenges.

Proposition 1 (HA): There is a relationship between PMO maturity level and PMO effectiveness.

Proposition 2 (HO): There is no relationship between PMO maturity level and PMO effectiveness.

Proposition 3 (HA): There is a relationship between PMO operational challenges and PMO effectiveness.

Proposition 4 (HO): There is no relationship between PMO operational challenges and PMO effectiveness.

Proposition 5 (HA): There is a relationship between PMO maturity level and PMO challenges.

Proposition 6 (HO): There is no relationship between PMO maturity level and PMO challenges.

VII. Structure of the Dissertation

This dissertation begins with an introduction to the research topic that outlines the background of the problem, such as the concept of PMO, its importance and effectiveness in organizations. The introduction chapter also clarifies the research problem, purpose and objective of the study, which is basically to investigate PMO challenges by analyzing the implementation process, methodologies, challenges and effectiveness. The chapter also provides a theoretical framework upon which the whole study will be based. The second chapter form a comprehensive review of literature that analyzes past studies and reports that have been conducted in relation to the current research topic. The literature review begins with an introduction to PMO and implementation methodologies.

This is the first among the five main sections of this chapter. The second section is the PMO effectiveness, considering both internal and external factors. The third section addresses PMO maturity level for both government and private institutions while the fourth section is a comprehensive analysis of PMO challenges. This section discusses PMO operational challenges categorized in sections such as organizational challenges, process challenges, technology challenges and situational challenges. The fifth section discusses the relationship between PMO effectiveness and maturity level. The chapter concludes with a highlight of the limitations encountered in conducting the review of literature, culminating in a conclusion segment that summarizes the review.

Chapter three is the research methodology which discusses the methodology, methods, tools, sample and data analysis that have been used to conduct the study. The fourth chapter is an analysis and of findings from the methodology, highlight key factors identified that help to either prove or disprove the research hypotheses. Chapter five presents a comprehensive analysis of the research findings and their implication of the research objectives. The sixth chapter will provide recommendations based on the gaps that have been identified in the current study that could be addressed in a future study of similar nature. Chapter seven highlights key factors that could be addressed in a future research while the eight chapter analyses the limitations encountered while conducting the entire study. The study concludes with a conclusion chapter that summarizes the whole study.

CHAPTER 2:

THE LITERATURE REVIEW

“The PMO can be a struggle of control and empowerment between political factions. As new forms of organizing gain the ascendancy or the balance of power shifts, which seems to happen periodically in most organizations, the PMO falls under the spotlight”

Pellegrinelli and Garagna

I. Introduction to PMO

Aubury, Hobbs and Thuiller (2008) state that “ in order to understand a PMO, one should take into account the context in which the PMO is located and the evolution of this context” (p. 39). In such a case, a PMO can be understood as a social unit that forms part of the complex system, which makes up an organization. The authors further observe that the structure and organization of PMO evolves according to the business or organizational strategies within which it is embedded. Given that business and organizational strategies continually evolve based on market and other conditions, PMO strategies also evolve within similar context, with ever changing organizational strategies (Aubury, Hobbs and Thuiller, 2008). Pells (2007) also note that PMOs adapt to their environment, which suggests that the relation between the organisation and the PMO adjust and change mutually. In this case, any volatility in the industry affects not only the organization within it, but also the strategic plans of PMOs within.

There is contention whether the structure of PMOs evolves according to the strategies laid down by the business. Crawford (2003) observes that rather than evolving according to the a specific strategy laid down by the organizational structure, the structure of a PMO co-evolves with that of the organization and not as a consequence of organizational strategy (Aubury, Hobbs and Thuiller, 2008). This implies that the whole evolutionary and implementation process is

codependent, and neither organizational nor PMO structure takes form independent of each other. The perception is therefore that both strategy and structure have significant roles in organizational effectiveness as well as the PMO (Pells, 2007).

Cooke-Davis (2004) observes that a PMO is constantly influenced by the events occurring around it, which makes it a product of past events, as well as an instrument with which to influence and align others in the future.

Aubury, Muller, Hobbs and Blomquist (2010) note that, “project management has come to play a central role in the management of organizations in almost all fields of human activity” (p. 766). In this case, a large portion of global GDP is accrued from capital formation that is directly linked with project activities. Many organizations structure and organize their organizational functions using projects and ultimately, PMOs (Larson, 2004). According to Crawford (2002), the last ten years have seen many organizations implement at least one PMO as an approach in towards effective management of projects and as strategic units. The Project Management Institute (2008) states that PMOs are entities within the organization, which are mandated to carry out specific functions based on the goals and objectives of the organization. In addition, there are two distinct types of PMOs, which are single project PMOs and Multi-project PMOs. Single project PMOs are tasked with the management and coordination of activities for one large project, while the multi-project PMO is mandated with the organization, coordination and implementation of a number of projects using similar resources, or with similar goals and objectives (Aubury, Muller, Hobbs and Blomquist, 2010).

However, as much as the strategic and operational importance of PMOs cannot be disputed, there have been contentions from different schools of thought as to the full importance, role, function and structure of PMOs within organizations. This may be primarily based on how the organization is structured and its goals and objectives.

Hobbs and Aubury (2007) point out that on average, PMOs will last for an average of two years. In such a case, as Aubury, Muller, Hobbs and Blomquist (2010) , PMOs are highly volatile, often unstable organizational structures, that are not generally expected to last for long. PMOs are therefore perceived as temporary structures mandated with propelling and coordinating organizational goals and objectives, and monitoring how they are realized.

According to Benko and McFarland (2003), the need and creation of a PMO is linked with a rise in the number and complexity of organizational projects which demands for increased cohesion and coordination, a factor that can be effectively achieved through centralization of operations. PMOs are in this perspective, viewed as central structures or units, which act as coordination stations that link all other organizational projects together. Anbari (2007) adds that PMOs also service specific functions within the organization, and may play a significant role in human resource management or as an audit unit of organizational functions.

Aubury, Hobbs and Thuiller (2007) state that organizational growth is linked with the entity's capacity to "constantly renew its product portfolio" (p. 328). In order to reach this end, enterprises and organizations are compelled to take up multiple projects in order to reach their goals faster. This has consequently creates a myriad of complex processes that need to harnessed together to realize organizational goals (Benko & McFarland, 2003). This has created the need for centralized units to coordinate all these activities. The goal of centralized units of project management is in this case, not only for making sure that the timely delivery of projects and on the budget, but that they also increase value for the organization.

Kwak and Xiao (2000) point out that the increasing trend for organizations and governments to adapt PMO as a strategic project management approach has a significant potential in adding value to the organization. PMOs are increasingly being set up within organizations to monitor and manage information systems and projects. Kwak and Xiao define PMO as "an organizational entity with full time personnel to provide and support managerial administrative, training, consulting

and technical services for project driven organization” (p. 1). In order to assess the effectiveness of PMO in enhancing project management and the achievement of goals and objectives, Kwak and Xiao suggest a systematic measurement of the benefits and values of PMO within the organization, using quantitative inquiry.

PMO acts in the capacity of internal consulting service that offers support to project management to complete the organization’s projects. Organizations stand to benefit in a various ways after successfully implementing PMOs. These include a proven way of applying management tools in achieving project goals, increasing the experience and professionalism of the workforce within the program and individual projects, attaining core competency through project management and general improvement of organizational performance (Kwak & Xiao, 2000).

There a various ways of identifying whether a PMO has been successful or not (Project Arena, 2003). A successful PMO is one that has been proven to add value to the organization, enable the organization to realize its goals and objectives and harnesses organizational strengths for maximum performance. A successful PMO is in this case, one that is able to translate strategy into action and the actions are able to add visible value to the organization.

According to Project Arena (2003), there are four distinct organizational models for the PMO in accordance with its goals and objectives. i). entails monitoring and reporting on progress and activities, ii). Controlling decisions and activities in a top down approach, iii). Assigning resources from a pool to the projects and iv). Offering consultation in process approaches and making recommendations. The authors add that the most suitable PMO model would be one that encompasses all the above four aspects. In this case “PMOs should drive decision-making, monitor progress and refine the processes that drive execution” (Project Arena, 2003, p. 2).

The following tables are a depiction of the successful implementation plan of PMO. Phase one involves tasks such as project planning, assessment of the environment, outlining the mission and vision, establishing PMO goals and objectives as well as developing a suitable business phase. Table 1 illustrates Phase 1, Project management Office Charter (Garcia , 2008). Phase one primarily involves the execution of five main steps. Step one is the project planning and initiation that entails the formulation of a project plan a schedule and a timeline. Step two involves a comprehensive assessment of the prevailing environment which is aimed at establishing currently available resources such as skills, workforce, finances among other project tools. This step also involves an assessment of organizational readiness such as existing organizational culture and other support systems. This particular enables the PMO process to identify key strengths, weaknesses, opportunities and threats that hinder the success of PMOs. The fourth step involves the identification and establishment of the goals and objectives of the PMO and ensuring that all stakeholders have reached a consensus in regards to this matter. The fifth and last stage entails a phase for the development of an ample business case. The stage also involves the identification and execution of PMO strategies within the designated timeline as well as a precise estimate of costs incurred.

- **Phase 1**

Phase	Step	Task	Detail	Outcomes
1	1	Project Planning and Initiation		Project Plan and Schedule
	2	Assess Current Environment	Resources (Staff, Skill set, Funding, Project Tools) Organizational Readiness (Culture, Organizational Support) Governance & Escalation Model	Strengths, Weaknesses, Opportunities, Threats Analysis
	3	Establish Vision & Mission	PMO Mandates PMO Policy & Direction Critical Success Factors PMO Models	Consensus, PMO Vision & Mission
	4	Establish Goals & Objectives		Consensus, PMO Goals & Objectives
	5	Develop Business Case	High-Level PMO Requirements Implementation Strategies & Schedule Cost Estimates	Business Case Document

Table 1: Phase 1, Project management Office Charter (Garcia , 2008).

- **Phase 2**

Phase two involves defining organization structure and staffing requirements, establish IT and other infrastructure, outline the PMO methodology and operational framework, establish the goals and objectives in addition to developing training requirements. Table 2 illustrates Phase 2, Project Management Office Charter. Garcia 2008, NM State University.

Phase	Step	Task	Detail	Outcomes
2	1	Define Organizational Structure & Staffing Requirements	Roles & Responsibilities Identify PMO Lifecycle Framework Identify PMO Process Domains	Organizational Structure & Staffing Requirements
	2	Facilitate Supporting IT Governance & Escalation Structure	Integrate PMO with current Governance processes Facilitate Buy-in & Consensus	Updated IT Governance & Escalations Structure
	3	Define Project Management Methodology Framework	Define PMO Lifecycle	Project Management Methodology Framework
	4	Establish Goals & Objectives		PMO Processes & Supporting Documentation
	5	Establish Review Process & Performance Metrics	Balanced Scorecard, 360 Feedback, etc.	PMO Review Metrics
	6	Develop Training Requirements	Project Management Training or Certification Coaching or Mentoring Skills Development Sourcing & Relationship Management Skills	Training Requirements

Table 2: Phase 2, Project management Office Charter(Garcia , 2008).

- **Phase 3**

Phase three involves developing a deployment plan and subsequently deploying the PMO. Table 3 illustrates Phase 3, Project Management Office Charter. Garcia 2008, NM State University

Phase	Step	Task	Detail	Outcomes
3	1	Develop Deployment Plan	Schedule Resources Costs	PMO Deployment Plan
	2	Deploy PMO	Acquire / Develop PM Methodology Add PMO Staff Pilot PMO	Program Assessments Semi-Annual PMO Review

Table 3: Phase 3, Project management Office Charter(Garcia , 2008).

According to Hawald, (2008), “the PMO needs to function as the enterprise program management office (EPMO)” (p. 1). This enables the program to support transformative efforts which may include upgrading effects or application of installation, mergers, acquisitions, change in business strategy and more. The

following figure 2 illustrates the organizational structure of EMPO as suggested by Robbins-Giolla (2008).

The concept of EMPO is underscored by three distinct phases, which are i. Project management, ii. Program management and iii. Portfolio management. The program management level is characterized by planning, control and analysis while the portfolio level involves evaluation, selection of leadership and resource allocation. Figure 2 illustrates Organizational structure of EPMO as suggested by Robbins- Giolla(2008).

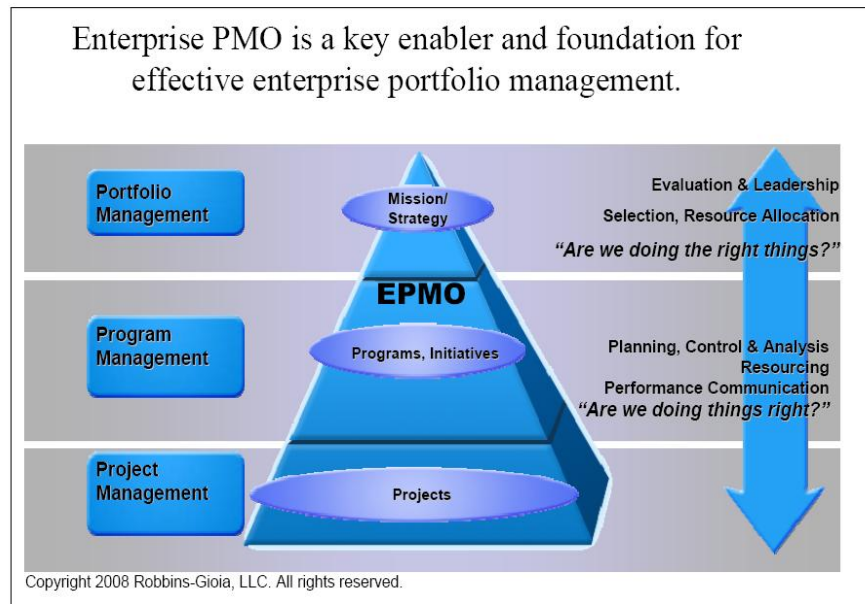


Figure 2:Organizational structure of EPMO as suggested by Robbins-Giolla(2008)

In the historical development of PMOs, a number of structures emerged such as EMPM, Business PMO (BPMO), Portfolio PMO (PtPMO) Programme PMO (PgPMO) and Project PMO (PPMO). These models form the basic foundation of both approach and objectives in organization. The BPMO is characteristically implemented as new business opportunities arise, concentrating on innovation, improvement of client/business relationship and generally maximizing on emergent business opportunities (Aubury, Hobbs and Thuiller, 2007). With the PgPMO

model, the organization concentrates on a growing industry, inculcating the complexities required to achieving set objectives within a volatile environment.

Robbins-Giolla (2008) observes that there are various traditional names and interpretations given to PMOs. These include Project management office, program management office, Corporate enterprise PMO among others. However, all these references fundamentally refer to the organizational structure that an enterprise or organization chooses to manage and integrate various projects with closely related objectives or the need to share organizational resources.

PMO Methodologies

The success of PMO implementation largely depends on the methodologies engaged by the organization to achieve its objectives. In this case, PMO methodology is specific practices and processes with the aim of achieving PMO objectives. This act as guidelines and inform PMO participants on roles, duties, methods and approaches that have been identified as ways of achieving PMO goals. PMO methodology also sets a time framework for each step in the implementation processes, thereby giving an almost precise prediction of project completion. Methodology also ensures that the process that is selected is well suited for the PMO and that of the organization (Project Arena, 2003). By engaging a suitable methodology a PMO is enabled to create a clear roadmap towards the achievement of objectives. A PMO is also able to monitor how resources are being used, and whether they are creating anticipated benefits. Methodology also ensures that PMO stick to the scope of operation as well as manage all participants and stakeholders. The following is a review of methodologies that are commonly engaged in the PMO implementation process. The methodologies that will be discussed are PMI, agility, Prince 2, stage gate and waterfall.

- **PMI**

The PMI model is characterized by three levels of processes, which are portfolio, program, project. The processes are further broken down into 12 processes that include project planning and project initiation. In addition, there are 92 processes in this methodology, which are directly connected to the management of factors such as scope, resources, time and cost.

- **Agility**

Alleman (2002, p. 7), describes agility as the behaviour of the participants and their ability to move or adjust in new and possibly unforeseen situations”. The following figure 3 demonstrates a structure for applying agile methodology in PMO. The method involves three critical facets, which are quality, products, or intended outcomes as well as the standards engaged to meet this outcome. In turn, the quality facet is influenced by variables such as milestones and the managerial methods that are engaged. The products are influenced by aspects such as techniques and activities which consequently influence teams and allocated roles as well as managerial processes. Standards are influenced by tools and the environment used engaged in during the developmental process. Figure 3 illustrates Interrelation between project management activities.

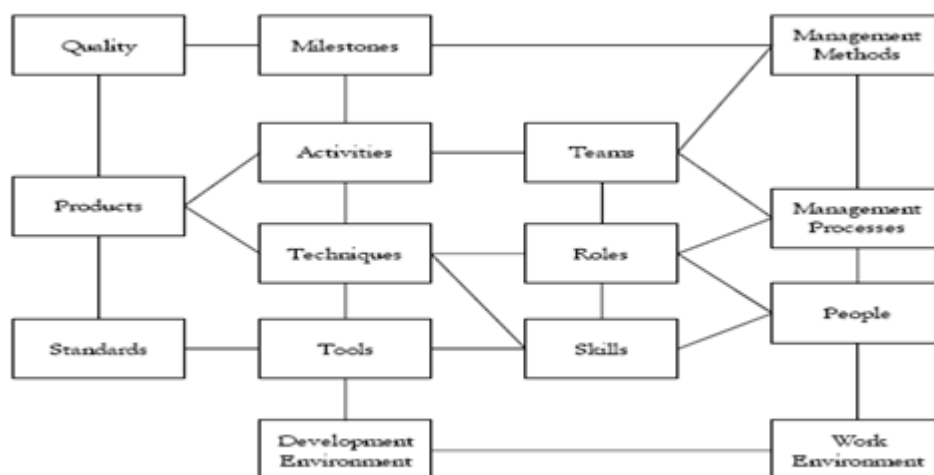


Figure 3: Interrelation between project management activities

- **Prince 2**

Prince 2 (Projects in Controlled Environments) approach is largely based on process management and enables PMO to indentify roles, duties and responsibilities for stakeholders and members of staff. The methodology also makes it easier to identify and allocate daily PMO activities, in such a case making it possible to recognize and eliminate weak links within the process. This methodology is adaptable to large scale and small-scale approaches and does not require a large number of employees to be effective.

- **Stage Gate**

This process is embodied by a development process that is passes through various stages with gates where they are approved. This implies that a project may not proceed to the next level before it has been approved at the next gate. This method is particularly effective as it allows PMO managers and other stakeholders to screen ideas and determine their effectiveness.

- **Waterfall**

Sequential processes, progression moves downwards in a depiction of a waterfall, characterize the waterfall methodology. This methodology is commonly termed as the traditional approach. This method is also characteristically rigid and linear and has very precise goals for each phase of the process. The fundamental benefit of the methodology is that it facilitates for tighter managerial and departmental control and there are clear deadlines for each phase, before which a process cannot proceed to the next stage.

Functions of a PMO are status reporting to management, developing and implementing standard methodologies, examination and control of project performance, enhancing personnel competence especially through training as well as implementing and operating project information. In addition, a PMO is mandated with advising upper management on pertinent issues, coordination, and creating and maintaining project scoreboards, promoting effective project management and supervising the performance of PMOs (Hobbs, 2010). The author adds that the PMO is also charged with strategic planning, mentoring project managers, managing portfolios, discovering and prioritizing projects, managing project archives and documentation, auditing, creating an interface between the management and customer, making provisions for a tools without attempts at standardization, effort to standardize, implementing specialized project management tasks, allocating resources in addition to performing reviews and evaluations. The PMO executes and supervises databases for the critical lessons learned from a particular process, create and control risk database, managing of benefits as well as provision of networking and scanning, recruitment, select in addition to evaluating and determining salaries for project managers (Hobbs, 2010).

II. PMO Effectiveness (Internal & External)

Important changes are linked to both the internal and external PMO environment. Aubury, Muller, Hobbs and Blomquist (2010) further propose that focus should be given on the process of organizational change linked with the process of implementing or transforming of a PMO, instead of focusing on PMO characteristic as a stationary entity within the organization. This means that the PMO should be accessed and understood within the precepts of the organizational changes and restructuring it creates, rather than an isolated entity within the organization. In so doing, it becomes easier to comprehend the extent and importance of PMOs within the organization, Using this approach to understand the workings of PMO is known as the process approach, a method that has been validated by several other researches. Artto and Wikstrom (2005) add that change

within a PMO may take a specific theoretical route, or happen spontaneously as a reaction to other organizational or industry changes.

According to Tse (2009) there are several external factors that hinder the growth of implementing a PMO. A PMO program manager, in this case charged with tackling arising issues of external relations such political interventions, , public relations, marketing, external politics and international relations. Tse further observes that external factors demand that the PMO and other units both within or outside the organization to cooperate to ensure the successful transfer of value.

External relational issues are further visible in PMO through the lack of adequate organizational support, lack of adequate support from stakeholders, interdepartmental conflict of interests , lack of visibility and a reluctance to adopt new and better ways of doing things (Tse, 2009).

In terms of strategies suggested in streamlining internal and external relations of the PMO, Tse suggests diplomatic associations where all program participants are encouraged to relate and interact with each other. These include project managers, resource managers, project officers, Chief executive Officers, and other senior members of the program (Tse, 2009).

Marketing is another important aspect that will ease relationships within and without the PMO (Myerson, 2004). Tse (2009) suggests that a program manager should have the ability to sell the program objectives to the organization to ensure there is no conflict of interests or undue opposition. Myerson (2004) adds that marketing the objectives of the PMO will increase support, and enhance collaboration between the stakeholders. Stakeholders need to be clear of the value that a PMO has potential of providing the organization, and the role of each player in ensuring that this goal is achieved (Kotler & Armstrong, 2004). Marketing also entails making the stakeholders aware that their collaboration with PMO will ensure the timely delivery of projects that priorities are addressed, and there is successful completion of each project within (Myerson, 2004).

It is also pertinent for a PMO to engage in proper public relation activities. This are primarily geared to educate others what the intentions, objectives and scope of operation for the PMO. Tse (2009) notes that adequate public relations are meant to make everyone else within the business of the significance of the PMO. In addition, it is suggested that PMO should seek the active involvement of international players to support local projects with information, expertise or other necessary resources (Lock, 2003).

Political support is also an essential aspect for external relations of the PMO. It is necessary for the PMO to establish whether any of its operations, strategies and objectives are conflicting within existing policies. In the event that PMO policies conflict with existing organizational policies, political tension is likely to ensure, which may culminate slowed implementation of abandonment of the program. In this case, it important that policy makers within the PMO consult widely with those of the organization to identify and eliminate policies and strategies that present conflicts of interests and have the potential of disrupting the operations of PMO.

Organizational culture is another important aspect of external relations between PMO and the organization. Kendall and Rollings (2003) note the importance of strategic collaboration of PMO with the department of human resources to establish ways of improving the organizational culture to become well aligned with the goals of the organization. Changing organizational culture is deemed as an important strategy in enabling the organization to adapt faster to PMO goals and objectives. Liaising with the HRD will mitigate resistance to the changes created by the PMO and will enable all stakeholders to understand the objectives and value to be gained from the program. Kendall and Rollings (2003) reassert that streamlining both external and internal relations of PMO will enhance its effectiveness, through the creation of a bottom to top support for organizational goals and objectives.

Thiry and Deguire (2007) acknowledge that organizations which adapt the PMO model are better suited in handling complex and volatile environments. This is especially so because the tensions experienced in decentralized encourage a wider distribution of knowledge and diffusion of tensions. It is also widely believed that the traditional methods of managing projects suppress innovation and inadequately suited for volatile situations.

Thiry and Dequire (2007) point out that in projects aim at delivering, within the specified period of time, a single result using the allocated resources. On the contrary, PMOs objective is in achieving “a number of, sometimes conflicting aims and has a broader corporate goal than projects” (Thiry & Deguire, 2007, p. 655). In such a case, for the effective PMO, there must be considerably high levels of integration throughout all the strategic levels (Lock, 2003). Moreover, as Aubury, Muller, Hobbs and Blomquist (2010) add, effectiveness can only be achieved if the PMO is adaptable to both internal and external changes and thereby flexible. Effectiveness is also enhanced by structures that are extensively team-based particularly in the impartation of skills. The level of flexibility and adaptability of the PMO to internal and external changes enables it to align itself to emergent issues.

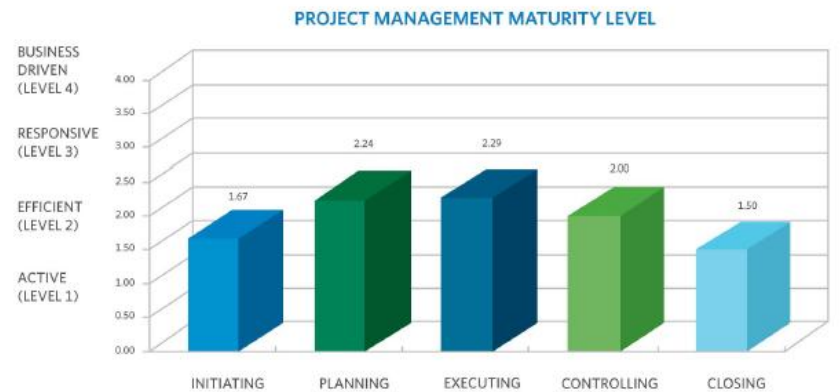
III. PMO Maturity and Performance Level (Government & Private)

Kendall and Rollings (2003) note that there are three distinct categories of PMOs, namely: project repository, enterprise and coach. Aubury, Muller, Hobbs and Blomquist (2010) add that the development of PMO is anticipated to pursue an incremental course from small level to a high level (p. 767). The Project Management Institute (2008) the Organizational Project Management Maturity Model (OPM3) assumes that maturity occurs in stages with a hierarchical organization. However, the study conducted by Aubury, Muller, Hobbs and Blomquist (2010) disputes this claim based on quantitative studies on the development and maturity of PMOs. The authors claim that there is no observable fact that supports the notion that PMO progress regularly towards becoming better PMOs.

The following figure 4 shows the five levels of PMBOK maturity in PMOs

FIGURE A

CA has several tools that can help companies analyze the maturity level for each individual process, and produce a simple average maturity level for the process groups.



Levels of Maturity from “Active” Through “Business-Driven”

Levels of maturity generally fall into these groups:

LEVEL 0: CHAOTIC No evidence of documented processes or best practices

LEVEL 1: ACTIVE Documented processes carried out, but not formalized (ad hoc, with unpredictable results, and dependent on heroics)

LEVEL 2: EFFICIENT Consistent discipline started (repeatable processes supported by materials and templates, but only in use in “pockets”)

LEVEL 3: RESPONSIVE Ubiquitous and measured (processes are applied consistently in the majority of situations and managed proactively)

LEVEL 4: BUSINESS-DRIVEN Provides data and information to drive business decisions (used as the standard throughout the organization, provides metrics for continuous improvement)

Figure 4 : PMBOK Maturity graph Craig-Jones (2007)

Pellegrinellin and Garagan (2009) quoted in Aubury, Muller, Hobbs and Blomquist (2010) assert that indeed, maturity of PMOs rather follow a process they term as 'emptying itself'. This suggests that as a PMO matures, PMO value is transferred to the organization, therefore playing the role of an agent of change agent that drives change and creates value for the entire organization. When this is accomplished, then the goals and objectives of the PMO are perceived as having been met, that any continued survival of the entity is not justifiable. "At this stage, project management is entrenched within the organization's processes "(Aubury, Muller, Hobbs and Blomquist, 2010, p. 767).

Conversely, the emptying process as an indication of PMO maturity may not always take the path stipulated by such a theory. Often, as Cooke-Davis (2004) notes, challenges, internal and external conflicts within the PMO and organization may impede the transfer of value from PMO to organization. In such a case, the value is diminished and the ability to manage the organization is compromised by tensions within the PMO. This calls for a new realignment of organization and PMO objects that will dilute tensions and enhance creation and transfer of value.

Kimmons (nd) observes that PMO was developed as an effort of improving performance and ability of projects to deliver their respective objectives. However, as much as PMOs have continually become developed and their internal processes become more refined, many PMOs have continually failed to deliver on their respective purposes. Kimmons notes that among the factors that have continually affected the maturity of PMOs is the absence of well-defined relationship between the PMO and project team. It is often astounding whether the project manager should report back to the PMO or if the "PMO be a resource to the project team" (kimmons, nd, p. 1). To achieve such an end, where PMO is able to achieve the objectives of the program, it is crucial to understand the vastness of PMO as an organization strategic tool. Firstly, PMO in this context involves all project managers that are covered under the PMO.

Aubury, Muller, Hobbs and Blomquist (2010) point out that the effectiveness of many PMOs is compromised by the fact that they are set up without putting into consideration the capabilities of the organization as a whole. The situation implies that the PMO is unable to reach the desired maturity level, and therefore does not deliver on projected goals. Pellegrinelli (2007) is of the opinion that the mismatch in PMO and organizational capabilities occurs when it is set up to follow previous models or models that have been successfully used by other organization. Applying even models that have proven successful in the past, without consideration of the unique aspects of the situation at the present will prevent the PMO from realizing the projected level of maturity.

Kimmons (nd) identifies two aspects that assess PMO maturity level. They are project management processes and organizational characteristics. The process levels in the former facet include the ad hoc stage whereby there are not processes or data, which are available on a consistent basis. The second process is the defined stage where the informal processes, data is defined and collected and problems identified. The third process is the managed staged characterized by formal planning, control systems and data, which are sufficiently managed. The fourth process is the integrated stage characterized by Program management. This is whereby the organization is able to manage multiple projects. At this level all project management processes are well integrated and data is collected, analyzed and applied quantitatively. The fifth stage is the sustained stage characterized by ongoing improvement of process, which are completely understood and usage of data is accurate and optimized.

Within the organizational characteristics facet is the ad hoc stage, which is underscored by isolated functionalities, an visible absence of management support and dependency on individual efforts by stake holders. The defined stage is characterized by a notably weak but team oriented process, and informal training in project management skills. The integrated stage is exemplified by strong teamwork and formal project management skills. The fifth and last process of this facet is the sustained stage whereby the PMO matures into the project driven organization. The organization is also dynamic, flexible and vigorous with ongoing improvement of project management processes (Kimmons, nd).

This provides a model with which to assess the level of maturity that a PMO is in, with the last stages signifying that the PMO has been able to strategize, consolidate and apply both knowledge and resources to meet its objectives as well as those of the organization.

IV. PMO Operational Challenges

Thiry and Dequire (2007) state that inasmuch as PMO value is quantifiable managers continually sabotage its processes, ultimately leading to abandonment (p. 655). This is because there is prevalent preference for conventional managerial approaches. According to Hobbs, Aubry and Thuiller (2008), the implementation or reconfiguring of an existing PMO is an organizational change of critical importance (p. 550). However, the process is often marred by numerous challenges classified into four distinct categories. These are i). organizational challenges, ii). Technological challenges, iii). Process challenges and iv). situational challenges. This section is going to cover the above factors, exploring how they affect planning, PMO support and implementation and possible approaches to enhance the process. Shehu and Akintoye (2009) add that for the successful practice and implementation of program management, the awareness of challenges that impede effective implementation should be thoroughly assessed and addressed(p. 26).

a. **Organizational Challenges**

- **Interdepartmental Politics**

Hobbs, Aubry and Thuiller (2008) observe that organizational change occurs within a highly politicized environment. This is because PMO changes are largely instigated and fuelled by political change. The authors further observe that the internal tensions within the organizational structure are largely determinant of the path that growth will follow and consequently, the new arrangement reconfigure in accordance with structures of, establishing new tensions (p. 550). In such a case, analyzing how PMOs are restructured or instituted requires for the integration of the political aspect that characterizes organizational change. Similar to any social aspect, PMOs are social organizations, which are bound to be influenced by political tensions that characterize human association. Such tensions emerge over time as a result of strains within the substructures, staff and management of PMOs.

Hobbs, Aubry and Thuiller (2008) note that tension in this case implies the difficulties that arise within and pose a significant threat to disintegrate project harmony. The political tensions often develops slowly but ultimately culminates into a situation that has the potential to fragment PMOs. Political tensions often emerge as result of managerial approach of the new managerial system or the dissatisfaction with the existing one. Often, sub-structural tensions emerge when levels of dissatisfaction increase. Lack of transparency or a highly centralized managerial structure in PMOs is likely to create political tensions that impede the efficient implementation of project goals.

- **Management Resistance**

According to Pellegrinelli and Garagna (2008), establishing a PMO reduces the autonomy previously enjoyed by project managers (p. 652). Such a situation not only creates political tensions, but also stirs management resistance to restructuring. This is because projects managers value their autonomy and are highly resistant to standardization, making it likely for a resistance to discipline and the lack of autonomy (p. 652). The authors point out further that, a PMO is likely to encounter resistance from within particularly if there is a perception of imposing issues and approaches, which project managers feel are inappropriate for such a situation. This triggers protectionist reactions and managers may go to the extent of demanding that PMOs be dissolved. Managerial resistance is triggered by the lack of autonomy, a highly centralized PMO structure, absence of a sense of ownership of the project and may lead to its dissolution despite the potential benefits it may hold for the community.

- **Organizational Alignment**

According to Shehu and Akintoye (2009), high level of precision is required for the not only planning and execution of projects but also their alignment with organizational goals. A lack of alignment with the goals and objectives of the business creates both internal and external conflicts as the project goals may be perceived as either undermining or conflicting those of the organization. In such a case, there is a need for synergy across the various projects, which form one program, or else, the conflicts of goals will make it impossible for their realization.

- **Lack of Training or Skills**

Another key challenge as observed by Shehu and Akintoye (2009) is the lack of necessary skills and knowledge in portfolio and risk management, and lack of financial skills. This highlights the importance of knowledge as an important resource that will enable competitive advantage that is sustainable (p. 27). The lack of adequate and relevant skills is a major challenge that may result in the failure to achieve project goals, the failure to set appropriate project goals or the failure to execute, support and monitor the process. The lack of adequate skills may exist within the management or staff of the PMO, which renders it ineffective in the end. In addition, personnel working within a project may receive or possess skills or training that are not relevant to the implementation of the present project.

- **Inadequate Resources**

According to Stanleigh (2005), the lack of resources is a major impediment to the successful implementation of a PMO. Resources in this case include human, financial and other resources necessary in the running of a project. Consolidating resources needed for the successful and efficient implementation of a PMO is not an easy task. This is because of the numerous requirements that are needed for the successful implementation of a project, which include human and financial resources, infrastructure and exposure to risks. This demands for adequate supply of financial resources, which will at times exceed the budget set at the initial stages of the program. In the case when financial resources run out before the completion of the project, and more cannot be accessed in time, there will be a stalling of the project which subsequently lead to a late delivery or cancellation. This also involves the prudent management of available project funds, setting of achievable and appropriate goals and setting a suitable timeline for the delivery of the project. In addition to setting a proper budget and sourcing for the financial resources required for the implementation of the project, it is of utmost importance that project participants have adequate financial management skills, which should be well established before allocation of roles and duties (Pellegrinelli, 2007). This

also touches on the challenge of accountability by project participants, especially the managerial department.

- **Lack of Accountability**

Lack of accountability within a PMO may be as a result of lack of relevant training or mismanagement by those in charge of the project (Stanleigh, 2005). Mismanagement may in this case take the form of embezzlement of funds, misappropriation of resources, lack of commitment to PMO goals and objectives and general financial mismanagement. Lack of relevant financial skills is a major cause of financial mismanagement, which often leads to financial resources running out before the project has been completed (Thomas & Mullaly, 2008). In such a case, it is of utmost importance that roles and duties are allocated according to relevant training, skills and experience. Proper monitoring should also be conducted regularly to ensure that all resources are being used accordingly and immediate measures are undertaken in the case where misappropriation of funds is detected.

Parr (2009) observes that in the case where financial constraints are experienced because of budget overruns, critical measures must be taken in order to reduce the outflow of the project or source for more funds before the time set for the completion of the project expires. Shehu (2008) adds that among the initiatives that may be taken to rectify shortfalls in finances is cutting down on human capital, revision of project goals or increasing the project timeline.

- **Inadequate PMO Staff**

Inadequate PMO staff is also a major challenge in the successful implementation of projects. Particularly due to financial constraints, projects are increasingly being forced to operate with limited human capital (Hobbs & Aubury, 2007). At times the roles and duties allocated often overwhelm staff, whose output is reduced as a result of overworking. In other cases, inadequate PMO staff means that participants have to perform duties, which they are not qualified for, thereby compromising the efficiency, implementation and goal achievement of a PMO (Aubry, Hobbs and Thuillier, 2007).

- **Staff Turnover/Reassignment**

Aubry, Hobbs and Thuillier (2007) add that another challenge to the successful implementation of PMO is the high staff turnover or reassignment to other duties. With careful planning and support, the initial stages will ensure that duties and responsibilities are allocated according to qualification and experience. However, as the project proceeds, and for one reason or another, there may be staff turnover which hampers the implementation of the project. In such a case, a project loses experienced staff, who have become acclimatized to the goals, objectives and implementation process of the PMO. Reassignment to other duties has similar effects on the project as experienced and qualified personnel are transferred to new roles and responsibilities where they have to gain new experience (Hobbs & Aubury, 2007).

- **Unclear Expectations or Changing Expectations**

In PMO planning, execution and support, participants may fail to identify clear objectives and goals for the program. In addition, there may be unclear expectations of roles and responsibilities, often leading to overlapping or duties and the inevitable conflicts that such a situation is bound to create. With unclear expectations of goals and objectives, there is likely to be numerous revisions and restructuring, which ultimately lead to conflicting objectives and implementation

procedures. Crawford (2002) observes that unclear expectations in job allocation will inevitably lead to changing of roles and responsibilities, and thereby changing of expectations. This will inevitably cause redundancy in the PMO, slowness in implementation, and ultimately failure to deliver project in according to the timeline.

- **Organizational Maturity**

Another challenge that emerges PMO challenge is where it is placed and the value accorded to it. Miletich (nd) observes that in many organizations, PMO is placed as a tactical tool rather than a strategic tool. This consequently inhibits the ability of PMO to deliver corporate value. Miletich further observes that “A strategic PMO offers the possibility for increased alignment between resource utilization and corporate strategy”. This will ensure that resources are allocated in accordance with the program’s priorities and that the objectives of the program are being achieved. The collaborative sponsorship and accountability also enables the understanding of the delivered value at every stage in the project as well as ascertaining that decisions made by the executive are based on precise and accurate information Bradbury and Mclelland (2001).

b. Process Challenges

- **Undefined Strategy**

Misner (2008) notes that despite the progress realized in the science of project management, only a fraction of the projects will realize their goals and objectives. This is primarily attributed to failure in governance, which exposes the project to numerous risks of failure. According to Pellegrinelli, Partington, Hemingway, Mohdzain and Shah (2007), governance is a critical component in the setting of not only the goals and objectives of PMO but also in formulating strategies to be undertaken to realize them. In such a case, and keeping in mind that organizational and PMO goals and objectives are significantly linked, failure of organizational governance will ultimately hinder the success of PMO. Governance at the organizational level is critical in setting well aligned strategies for both the

organization and the PMO (Misner, 2008). Any unclear or conflicting strategies at this point will negatively affect the effectiveness of a PMO. Weill and Ross (2004) as quoted by Wisner (2008) observe that “companies that follow a specific strategy and demonstrated above-average governance had profits which were more than 20% higher than those of companies that followed the same strategy but had poor governance” (p. 1). This demonstrates the importance of governance in identifying clear goals, objectives and strategies for both organization and PMO.

Aubry, Hobbs & Thuillier (2007) observe, strategic alignment is regarded as an organizational function. In such a case confusion emerges in the identification of processes for a specific function which impedes the effectiveness of PMO. Operating under an a vague or undefined strategy implies that the PMO has no distinct goals and objectives and no clear path towards achieving value for the organization (Misner, 2008). This, more often than not, will lead to both internal conflicts of objectives and the means towards achieving them. Hobbs (2007) adds that it is of utmost importance for the organization to link their all projects to the organizational strategy and ultimately its goals and objectives.

The problem of undefined strategy becomes more heightened, considering that PMOs are supposed to constantly realign themselves with the changing environment of both the industry and the organization (Bradbury and McLelland, 2001). This creates the need to continually review its strategy and objectives, a factor that may ultimately lead to goal confusion or unclear and undefined strategies with which to achieve them. Aubry, Hobbs & Thuillier (2007) proposes that insofar as structures are continually changing to adjust to the changing industry and organizational environment, it is necessary for strategies to be revised and connected to the dynamic structuring and strategizing processes.

Shehu and Akintoye (2010) note that the successful design of a programme management office depends on the commitment it will receive from the leaders (p. 27). This also highlights the crucial role played by leadership and governance in the success of PMO. Leadership is mandated with the responsibility of identifying clear and concise strategies that will enable the organization realize

its objectives. Without a deep commitment from the leadership, a PMO will fail to identify key organizational strengths and weaknesses that are crucial in setting appropriate strategies. In such a case, the authors suggest extensive involvement of top and middle management in laying out strategies for the organization and PMO (Englund, Graham and Dinsmore, 2009).

Shehu and Akintoye (2010) also note that the challenge of undefined project strategies is likely to occur when there is no concise alignment of projects to strategy. Due to the several number of projects that may exist within a PMO, displacement of strategies is likely to occur leading to late deliveries or stalling of projects. One misplaced strategy for a specific project within a programme is likely to affect all other projects within. This suggests that there should be high levels of synergy and coordination to ensure that specific projects are aligned with their specific objectives and strategies. Miletich (nd) opines that complex organizations with PMO can have realize marked improvement in their corporate value if they position PMO as a strategic tool. This asserts the need to have clearly defined strategies. Pellegrinelli, Partington, Hemingway Mohdzain and Shah (2007) note that, among the ways which organizations can enhance application concise strategies is through efficient allocation of available resources, focusing on organizational and PMO objectives, monitoring the implementation process to make sure that the realization of set objectives is visible and realizing the real value that is gained at any stage during the PMO cycle.

According to Shehu & Akintoye, there are seven factors that encumber PMO strategy. This include, a lack of cross-cultural engagement, absence of project alignment in regards to strategy, and the lack of adequate coordination within projects, infrastructure that would enable the delivery of objectives and a lack of training for the program participants and team members .

• Undefined Investments Process

Thiry and Deguire (2007) state that the past few years have witnessed a shift from organizations that are mainly project based, to and contained managed to a perspective that is strategic in its approach (p. 651). This implies that organizations are increasingly using PMOs to maximize their efficiency and increase benefits. Some of this benefits included increased competitiveness in the market and higher revenue realization. Due to importance of PMOs in organizational strategy, allocation of investments is crucial at two levels, i. Allocation of organizational resources within the PMO and ii). Investment of PMO benefits in organizational or external projects. Thiry and Deguire note that in the absence of well defined investment processes at the two levels, both organizational resources and benefits are likely to misallocated. In addition, there is increased possibility of investing in the wrong platforms that nullify the benefits accrued from PMOs (Pellegrinelli, Partington, Hemingway Mohdzain and Shah, 2007). In this case, the authors recommend for the comprehensive understanding and implementation of organizational objectives and strategy in order to make appropriate investments that will increase organizational value (Thiry and Deguire, 2007).

• Uncontrolled Demand

The Project Arena (2003) observes that “a challenge that PMOs often take on is managing demand for resources, especially when demand outpaces capacity” (p. 2). There are situations where there is more work to be done than there is the workforce to complete it. In other cases, other resources needed for the completion of the project may be limited and cannot satisfy all the needs of the projects within the program. In such a case, sound leadership should be able to allocate resources according to priorities and employ effective monitoring strategies that will ensure that the limited resources are working towards the realization of project goals. Adapting a suitable PMO model will enable the organization to withstand the challenge of uncontrolled demand that puts a strain on available resources (Thiry and Deguire, 2007). The Project Arena suggests harnessing the goals, decision making, disciplines and tools that the organizations

possesses in order to balance demand with available resources, and allocate them according to priority. Alignment of goals is particularly important as it enables the organizations to clearly identify its priorities, thereby allocating adequate resources. Pettigrew (2003) adds that it is important to constantly communicate organizational goals to all stakeholders to ensure the prioritization of needs.

- **No/ Poor Priorities**

Being without priorities or having poor ones will impede the effectiveness of PMOs in a number of ways (PMI, 2008). These includes creating an imbalance between demand and available resources, creating interdepartmental conflicts and tensions, allocating resources to areas where they are not needed thereby denying most deserving projects access. This will ultimately lead to the total failure of the program if none of the goals and objectives of the organization are being met. To counter this challenge, it is important for the PMO to set suitable goals and objectives that are aligned with those of the organization (Pellegrinelli, Partington, Hemingway Mohdzain and Shah, 2007). Having strategic goals will subsequently enable the PMO to prioritize its objectives, and subsequently allocate resources accordingly.

- **Lack of Formal Processes**

Crawford (2002) observes that among the main responsibilities of PMO is to act as a strategic tool that will deliver value to the organization. In such a case, PMO is mandated with improving existing organizational and project processes and developing of standards and processes for the program. Aubry, Muller Hobbs and Blomquist, (2010) observe that successfully undergoing a transition demands that PMO monitor the extent of their standardization which are linked to PMO functionalities to engage in methodologies tools and processes (p. 774). This suggests that the successful outcome of PMO objectives is largely dependent on how efficiently it follows the formal processes that have been put in place to guide its operations. The absence of such formal processes exposes the PMO to

procedures that are not standardized, and therefore not well aligned with those of the PMO. Aubry, Muller Hobbs and Blomquist, (2010) further note that in the process of PMO transformation, the initial change occurs with the recognition that a project lacks cogent standardization or formal processes to guide PMO operations and decision-making. The situation is further compounded by the fact that there are different approaches through which organizations manage their projects and lack of a formal process of selecting and applying the most suitable will lead to PMO failure. The authors further observe that with the absence of adequate formal processes, the PMO is at risk of “reinventing the wheel” therefore wasting resources duplicating similar processes that are not core to the success of a project. It is therefore recommended that PMO adopt standardized but flexible processes suited for each project, without duplication or unnecessary repetition. However, it should be noted that not all projects are suited for stringent formal processes, and therefore the call for flexibility especially in bureaucratic processes (Crawford, 2002). Lack of formal processes to guide PMO implementation makes it culpable in the emergence of internal and external conflicts. Without formal processes, and the prevalence of duplicated roles and processes, conflicts of interests arise among the stakeholders, leading to failure or delay in delivery (Aubry, Muller Hobbs and Blomquist, 2010).

In order to deal with this problem, Aubry, Muller Hobbs and Blomquist, (2010) recommend that PMO should aim at “ implementing flexible standards depending on the type, complexity or risk of projects” (p. 774). This implies that processes and methodologies should be adopted according to the various PMO situations in order to enhance efficiency and their ability to deliver on results.

- **Ineffective Processes**

Processes that an organization chooses to engage in PMO should be well aligned with overall program objectives and strategies. Thomas & Mullaly (2008) observe that many PMOs end up in failure because of engaging the ineffective or inappropriate processes that are not suited for that particular objective or type of organization. According to Morris (2004), different types of organizations require different processes that are suited and aligned to their goals. For instance, small and medium size enterprises (SMEs) require uncomplicated planning, control systems and informal reporting (Turner, Ledwith & Kelly, 2010). Within this context, it is expected that the process that an SME PMO selects for planning and implementation should be straightforward, flexible and with limited bureaucracy. Within SMEs, the organizational culture is often that of close-knit employees. There is also not much specialization, which implies that employees can undertake a number of duties and responsibilities.

On the contrary, large companies are characterized by a highly specialized workforce (Turner, Ledwith & Kelly, 2010). Consequently, the processes adopted must reflect the complexities associated with such an organization. It would be highly unsuitable for a large organization to adopt PMO processes that pays no regard to a highly specialized workforce. Large organizations are in this case, better suited for process that are more formal and bureaucratic in nature (Thomas & Mullaly, 2008). The processes also involves formalized decision making and procedures that are more suited to a highly specialized workforce. In addition, Keegan and Turner (2002) add that the processes should follow clearly defined management procedures owing to the number of participants involved and goal complexity as well as strategies being employed.

In a study conducted by Turner, Ledwith & Kelly (2010), it was established that companies often engage processes in accordance with their strategies and objectives. In this regard, there are different levels of processes, which determine the extent to which a specific organization engages in project management. The authors further observe the recommendations of a project management company that the following are essential in determining the suitable levels of processes for the PMO. These include Project size, project complexity, skill levels of the team, skill levels of clients, and the demand or desire for the customer to obtain the product.

Other studies contend that SME companies require different levels of processes compared to larger companies ((Turner, Ledwith & Kelly, 2010). This is based on the belief that even SME may require any of the processes, which does not support the notion that SMEs require smaller processes. Nonetheless, it is at the discretion of the governance and leadership team to lay out the appropriate processes for the strategy. This is because, as Pellegrinelli (2007) observes some SMEs have a large team working within a particular PMO, suggesting they the project management exceeds the size of the company.

- **Process Complexity**

According to Hobbs and Aubury (2007), process complexity is one of the major challenges that affects the successful implementation of PMO within an organization. The problem is not only rooted in the adoption of inappropriate or ineffective processes, but also suitable processes, which are further, complicated during the implementation stages. Hobbs, Aubury and Thuiller (2008) note that the effectiveness of a PMO may be hindered when there is a myriad of too many unrelated processes within the program. This includes aspects such as sharing of resources among the various projects involved in the program, managing the supply chain, execution and implementation processes, issues with funding and many more.

Hobbs and Aubury (2007) further note that with the many projects that may be involved under one program, defining the procedures for each project and presenting it in a formalized manner may ultimately prove to be a challenge. The complexity arises because the various projects under the program require their specific strategies, implementation process and management, funding, supply chain management among others. It is therefore necessary for PMO to appropriately breakdown these roles for specific projects in order to simplify the implementation and assessment procedures.

- **Financial Management**

In their research, Shehu and Akintoye (2010) established that financial management, or the lack of it is a major process challenge in PMO implementation. They point out that there are four challenges related to financial factors. These are initial funding, operational costs, inadequate skills in financial management, financial limits, an obscure company strategy regarding finance, lack of appropriate way to evaluate project benefits. PMO normally have a high demand on capital and organizations allocate extensive resources for the success of PMO. In such a case, existing resources may not be adequate in the establishment and completion of a PMO, which will subsequently lead to stalling or withdrawal before completion.

Lack of clear strategies affects financial management because of misappropriation of funds by allocating them to lower priority areas (Shehu and Akintoye, 2010). When a PMO lacks a well defined strategy, it is more difficult to identify high priority areas that require immediate financial support (Shehu and Akintoye, 2010).

The PMO process involves many complex procedures, that if not properly executed are bound to create challenges for the entire process (Bradbury and McClelland, 2001). Some of these challenges include: undefined strategies, undefined investment processes, uncontrolled demand, poor priorities, lack of formal processes, ineffective processes, process compliance, process

complexities, incomplete requirements financial management, knowledge management and efficient communication. Bradbury and McClelland (2001) note that institutions that engage in multiple projects whereby sharing of available resources is mandatory, the process is more tasking (p. 3). The authors further observe that process challenges are often confounded by the planning and execution of projects, whereby, inadequate planning will affect the execution of the project.

The Project Management Institute (2008). Observes that inadequate knowledge or poor management of the available knowledge and skills creates hurdles for the PMO. Lack of adequate knowledge regarding the objectives, process, execution, support and monitoring of PMO will ultimately make it ineffective. Furthermore, without proper knowledge of the current status of PMO, managers will often take decision that do not reflect on the needs of the project in its current status, and will also fail to institute correctional measures where previous strategies have proved ineffective (Bradbury & McClelland, 2001). Knowledge management is in such a case, important in the overall success of the PMO process. Improper management of available knowledge will also lead to participants, especially decision makers, to take decisions that not only overburden the project, but may also lead to a redundant process. In this case, Project Management Institute (2008) add that the planning and scheduling is instrumental in the success of PMO.

This suggests that with such time placement, it is inevitable that the algorithms used to schedule tasks fail to consider important factors such as resource dependencies, and variability in task and iteration. The authors further note that with the overoptimistic placement of schedules, in the event of their failure, PMO will engage in mitigation strategies, which ultimately lead to self-preservation strategies by project participants. The self-preservation causes deliberate delay in delivery, since participants wish to avoid criticism in case problems arise with early delivered work, or to protect themselves from in case they fail to meet a deadline in the future.

- **Communication**

Communication is another important factor that creates significant challenges in the PMO process. Hawald (2009) observes that for effective communication in the PMO process, all stakeholders, including management and other members of staff should be involved in developing the framework to be used for governance. “Through the process of shared development, the outcome is seen as a program, product or service of the enterprise, and therefore considered less foreign or new when implemented” (Hawald, 2009, p. 7). In addition, there should be reliable communication of the overall objective of the PMO among all stakeholders.

c. Technology Challenges

PMOs are often challenged by the magnanimous problem of technology. This problem also poses several other issues such as metric reporting, ineffective or obsolete tools lack of infrastructure among others. Technology and technological skills are essential, in not only the stages of planning and execution but in coordination as well. Jamieson (2008) observes that the proper and efficient use of technology in PMOs increases efficiency, and enables easy monitoring of projects. This includes monitoring PMO expenditure, staff output as well as the extent to which the PMO is meeting its goals and whether the timelines will be met. In essence, use of technology is fundamental in the success of a PMO.

However, as Englund, Graham and Dinsmore (2009) observe, use of technology can also be redundant, or render some project processes redundant in the case it is not used correctly. Key challenges emerge especially in metrics and reporting, whereby inefficient use of technology will lead to the incorrect reporting. In addition, financial constraints and other factors may lead to limited or unavailable technological infrastructure required by the program. This means that processes that could be easily be accomplished by technology are done manually, which takes longer and may not be as efficient, or will have to be done away with. Moreover, even with the availability of the necessary technological infrastructure, it may still be impossible to use it especially when project participants lack the necessary skills to effectively use the technology.

d. Situational Challenges

- **Dynamic Business Environment**

Mihailidis, Miletich and Khreich (nd) note that different industries are characterized by different levels of competition. In such a case, allocation and utilization of resources is a crucial factor in gaining competitive advantage within the market. When an appropriate strategy has been identified, the organization is charged with realigning or resources and infrastructure. The challenge is in this case is that to make an adequate response to completion within the volatile business environment, the organization must act fast enough to deliver the needed resources and capabilities. In the case where a PMO does not have sufficient flexibility, then the speed of response will not be swift enough to mitigate against the effects of a dynamic business environment. Within a PMO framework, the organization is better suited for making a swift response because of strategic measures in place that prioritize operations according to their importance (Mihailidis, Miletich and Khreich, nd).

As noted by Thiry and Deguire (2007), PMOs need to remain highly flexible in order to make swift and adequate responses to industry and market changes. As the industry experiences volatility, the organization should take appropriate mitigation steps and subsequently realign them with the goals, strategies and objectives of PMOs. This enables the organization and the PMO to remain relevant according to the changing industry environment, as well as gain and maintain a competitive edge within the market.

- **Emerging / Disruptive Issues**

Thiry and Dequire (2007) observe that inasmuch as PMO are characteristically suited to respond to volatile situations, emergent issues will always disrupt, if not impede their ability to realize the objectives. The authors observe that fostering a flexible and dynamic PMO environment especially during volatile periods, the alignment in strategy involves proper interpretation and having flexible options for reformulation (654). Dealing with turbulent times includes unforeseen emergent issues which disrupt PMO processes. With the lack of strategic linkages, emergent issues are likely to stall or even stop PMOs before the objective is realized. Emergent issues may include political tensions, conflicts of interests, depletion of resources before project completion, volatile markets among other industry changes (Thiry and Dequire, 2007).

V. Relation between PMO Challenges & PMO Effectiveness & Maturity Level

Among the most significant challenges faced by PMOs is that of human resources. Pole to pole (2009) observes that human resource is a significant factor in any project (p. 15). This is because there is great interdependence of participants within the PMO in terms of skills, career aspirations and contributions to the PMO. All these aspects of human resources pose potential problems and risks to the effectiveness of PMOs. Political challenges are created by individuals who perceive a threat to their positions of influence within the PMO. In such a case, they are likely to sabotage the efforts of the project, causing its failure. A dissatisfied workforce within the PMO will greatly compromise PMO effectiveness.

In addition, another facet of human resources that compromises the effectiveness of PMOs is understaffing, inexperience of staff or their lack of crucial skill required in the successful implementation of PMO objectives (Pole to pole, 2009). An understaffed PMO means that the workforce is constantly overworked, which affects their effectiveness. Moreover, an inexperienced staff will likely

slowdown the implementation of PMO objectives, as staff either have to trained on-job or take time learning the operations of the PMO. These not only lead to delayed delivery of projects, but may also jeopardize the quality of PMO benefits. Lack of critical skills, notably financial skills may lead to misuse and misappropriation of resources, depleting them before project completion (Shehu and Akintoye, 2010). Lack of skills also compromises the ability of the workforce to prioritize objectives.

Other challenges such as the lack of financial resources imply that a PMO lacks the resources with which to achieve it objectives. Other critical resources to the PMO impede the effectiveness of PMOs if they are absent or not sufficient are such as technology. Technology plays an key role not only in the preparation stages of the PMO, but also throughout the implementation process.

Process challenges are also significantly linked to the effectiveness of PMOs (Project Management Institute, 2008). Unsuitable processes compromise prioritization which is paramount in multiple projects multiple projects that are managed as a units (Pole to pole (2009, p. 15).

VI. Literature Review Limitation

An obvious limitation of this study is its over reliance only on previously published works and their availability. In some cases, some studies, which were suitable for this review, were excluded because there were no available English interpretations for those published in other languages such as German and French.

Another limitation of the study is the quantity of literature available about the topic. This implies that it was impossible to cover all publications, and the reviewer may have omitted critical publications that had relevant or new information concerning the topic.

Another limitation was the lack of experience in the field of the PMO and therefore a two months training course was undertaken online under supervision of Dr. Steven C. Rollins the author of Advanced Project Portfolio Management and the PMO. This provided the researcher with a full idea and description of the Project Management Office and the challenges that they encounter. Please see APPENDIX 1 : Advanced Project Portfolio Management and the PMO Certificate

The researcher also attended a one week training about Building and Sustaining the PMO conducted by Mr. Muneer Ajam t- CEO of SUKAD FZ-LLC (www.sukad.com) as most of the government sectors have attended it. This provided an excellent opportunity to understand the way of their work and the challenges that they are facing. Please See APPENDIX 2 : Build and Sustain the PMO Training Certificate.

VII. Conclusion

In conclusion, the literature review has analyzed the PMO concept in five sections namely: Introduction to PMO, PMO effectiveness for both internal and external factors, PMO maturity level for government and private institutions, PMO challenges, the relationship between PMO effectiveness and maturity level. Through the literature review, it is possible to deduce that there is an interrelatedness between the variables that form the conceptual framework of this study, which are PMO maturity, PMO challenges and PMO effectiveness. This is because PMO maturity level is likely to determine the extent to which PMO experiences challenges, or the manner in which these challenges are dealt with. Due to the experience gained during the initial stages, a mature PMO was observed to have better mechanisms to respond to, and deal with PMO challenges, in addition to having better measures against them. This suggests that mature PMOs experience lesser challenges, or are better equipped to respond to them before they significantly disrupt PMO operations. The same is the case with PMO effectiveness. From the literature review, it can be deduced that the level of PMO effectiveness is likely to be influenced by PMO maturity, and the manner in which PMO deals with challenges. Therefore, all these variables are interrelated and determine the level to which PMO will meet its goals and objectives.

The primary objectives of this study are to analyze the entire concept of PMO and the change of implementation of PMO in government organization. Examine PMO effectiveness, based on internal and external factors, identify the challenges associated with the initiation stage of PMOs in government organizations, identify the extent to which PMO challenges influence PMO maturity levels and PMO effectiveness. The literature review has examined the extensive body of literature pertaining to the study objectives. This was conducted according to the conceptual framework that operational performance is determined by Process maturity level, level of PMO effectiveness and ability to manage challenges. As such, the review of literature has established the interconnectedness of these variables, thereby answering the objective of this study. The following table 4 summarizes the important aspects that have been addressed in this review of literature.

	Authors	Summary	Relationship
PMO Maturity Level	Bradbury, J, D & McClelland, W.T. 2001, Jedd, M, 2005, Lazar. O 2010, Robert L. n. d	<p>Five levels of Maturity</p> <p>Level 1- Most Business Processes are informal or undefined</p> <p>Level 2- Most Business Processes are defined, but not well adopted</p> <p>Level 3 – Most Business Processes are defined , repeatable and followed</p> <p>Level 4 – Most Business Processes are aligned and have performance measures</p> <p>Level 5 – Most Business Processes are optimized and continually improved based on their performance</p>	<ul style="list-style-type: none"> - Maturity level determined by operational challenges - PMO challenges affect level of maturity
PMO Effectiveness	Crawford, P., Bryce, P., 2003; Crawford, Lynn, Pollack, Julien, 2004. Elliot. P. 2007, Misner. J. 2008	<p>Influenced by PMO processes such as</p> <ul style="list-style-type: none"> i.PMI ii.Agility iii.PRINCE 2 iv.Waterfall v.Stage gate among others 	<ul style="list-style-type: none"> - Effectiveness influenced by maturity level. - Challenges impair PMO effectiveness.

<p style="text-align: center;">PMO Operational Challenges</p>	<p style="text-align: center;">Jacob. D.B & McClelland. W.T 2001; Shehu. Z & Akintoye. A 2008</p>	<p>Organizational Challenges</p> <p>Interdepartmental Politics Management Resistance Unclear Expectations Changing Expectations PMO Placement in Organization</p> <p>Organizational Maturity Organizational Alignment Inadequate Resources Lack of Accountability Staff Turnover/Reassignment Inadequate PMO Staff Lack of Training or Skills</p> <p>Technology Challenges</p> <p>Ineffective/Obsolete Tools Lack of Infrastructure Process Challenges Undefined Strategy Undefined Investment</p> <p>Process</p> <p>Uncontrolled Demand No/Poor Priorities Lack of Formal Processes Ineffective Processes Process Complexity Financial Management Knowledge Management Communications Situational Challenges Dynamic Business</p> <p>Environment</p>	<ul style="list-style-type: none"> - Challenges affect PMO effectiveness. - Ineffectiveness prevents PMO from reaching maturity levels.
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		<p>External Influences</p> <p>Emerging/Disruptive Issues</p> <p>Process Challenges</p> <p>Undefined Strategy</p> <p>Undefined Investment</p> <p>Process</p> <p>Uncontrolled Demand</p> <p>No/Poor Priorities</p> <p>Lack of Formal Processes</p> <p>Ineffective Processes</p> <p>Process Complexity</p> <p>Incomplete Requirements</p> <p>Financial Management</p> <p>Knowledge Management</p> <p>Communications</p> <p>Situational Challenges</p> <p>Dynamic Business</p> <p>Environment</p> <p>Emerging/Disruptive Issues</p>	
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Table 4: Summary of important aspects discussed in the literature review

CHAPTER 3 :

RESEARCH METHODOLOGY

“Goals are dreams with deadlines”

Diana Schart Hunt

I. Research Methodology

This study used a mixed design research methodology to achieve its objectives. This implies that both qualitative and quantitative methodologies were engaged. The qualitative study was largely applied in establishing a theoretical framework for the study, which was established by conducting an extensive review of existing literature on PMO effectiveness, challenges and maturity level. The use of the qualitative method was crucial as it enabled the laying down of a sound foundation for the theoretical data to take shape. Laying such a foundation has made it easier for the understanding of PMO processes and other factors involved. The use of this method also facilitates the better comprehension of quantitative data. The qualitative methodology also involved the use of case studies, which were conducted with members of PMO sections in Government departments. Mixing these two research methodology rather than just using one of them ensured that the key weaknesses of either method were covered by the other one. Qualitative research is primarily instrumental in establishing a sound theoretical framework that supports data and conclusion from quantitative inquires. A theoretical framework well established on qualitative research is fundamental in the comprehension and interpretation of quantitative data. In this case, the combination of both quantitative and qualitative methodological approaches will act in a complimentary manner. This is considering that if a qualitative method of inquiry was adopted as the sole research methodology, then the review of existing data would prove too large to be feasible.

Questionnaire development

The questions for the survey questionnaire were developed based on the conceptual framework for the study. The theoretical framework is thus to establish how operational performance is influenced by variables such as process maturity, level of PMO effectiveness and ability to manage challenges. The following are the hypotheses which the survey questions will seek to prove or disprove.

Proposition 1 (HA): There is a relationship between PMO maturity level and PMO effectiveness

Proposition 2 (HO): There is no relationship between PMO maturity level and PMO effectiveness.

Proposition 3 (HA): There is a relationship between PMO operational challenges and PMO effectiveness

Proposition 4 (HO): There is not relationship between PMO operational challenges and PMO effectiveness.

Proposition 5 (HA): There is a relationship between PMO maturity level and PMO challenges

Proposition 6 (HO): There is no relationship between PMO maturity level and PMO challenges

In developing the questionnaire for this study, a number of key steps were adhered to. The first one was an evaluation of existing body of knowledge through the literature review. This stage enable the questionnaire to indentify various characteristics of the variables being measured such as PMO maturity levels, effectiveness and challenges. Subsequently the body of literature highlighted the interrelationship between the three main variables and how they affect each other.

The following stage in development of the questionnaire involved the identifying how to administer of the questionnaire. From the 28 government PMOs approached to participate, 24 responded and a total of 69 respondents were selected. The respondents to the questionnaire were drawn from the members of staff from the 24 different government PMOs. It was established that the most cost effective and timely approach would be through electronic means of administration. Following was the development of the questions that would feature

in the questionnaire to answer the research questions. Initially, many questions were put down that addressed the research questions, and later narrowed down to the most relevant questions that would adequately measure each variable. The questions were divided into five distinct categories based on the variables they intended to measure. The elimination process of excess questions involved the establishment of how relevant to the study and research question each questionnaire question was. A unique strategy used in developing the questionnaire was placing strategic questions right after easier preceding questions. This was done to make it easier for the respondent to provide answers for seemingly difficult questions following the foundation laid down by previous simpler questions. Questions were restructured, rearranged and rephrased to ensure that they addressed the research objectives. The following sections will be discussed: PMO maturity model, PMO effectiveness and PMO challenges. For more details please see appendix 3 & 4 PMO Challenges in the Government – Directors and Staff surveys.

a. Section One: Demographics

Section one establishes the demographic information for the study. Questions include establishing the role that the respondent plays in the PMO, the organization and structure of PMO, the type of PMOs such as EPMO, BPMO, PtfPMO, Pg PMO or PPMO. Other demographic information established in this section includes number of employees in the organization as well as how the organization established PMO.

Demographics will be established by posing relevant questions regarding the PMO situation within the organization. The questions are structured in such a way as to provide a foundation for investigating the PMO variables that are the basis of this study. The questions are intended to inform the study as to the size of PMO, the methodologies being used, and type of leadership. These questions will be critical in comparison with responses from other sections, such as maturity level and challenges. The size and scope of PMO will be compared with the reported level of maturity and effectiveness in subsequent sections.

b. Section Two : PMO Maturity and Performance Level

PMO maturity level will be determined through the first section of the survey questionnaire. The reporting is largely self-assessed in part A. This section was developed to assess the time that the PMO had been in service, the scope of the PMO, number of individuals in the PMO as well as PMO functions. Particularly, the questions developed to highlight PMO functions would indicate whether the PMO had been able to clarify its functions, or whether it was still at the stage where the objectives were still unclear. Part B will establish the type of business processes that the PMO in question is using such as Agile, PMI, Prince 2 Stage Gate, Waterfall or others. Level of PMO adoption such as full, partial and evaluation will also be assessed. Q 7 seeks to establish the scope and span of PMO services as this is related to its maturity level. Q8 is particularly relevant to PMO maturity level as it identifies the specific level of PMO operations. The variable being measured in this question is PMO maturity level. This question was developed in a manner that would enable the study to determine whether the PMO is at the level where the PMO is planned and resources available, but operations have not been initiated. Another determinant of PMO maturity is whether the PMO is all planned out, resources available and operations underway. A higher maturity level will be determined by the existence of major projects only. The above mentioned elements will be collected quantitatively and the evaluation conducted using correlation methods

c. Section Three: PMO Operational Challenges

PMO challenges will be established through the third section of the survey questionnaire. The variable being measured is PMO operational challenges. The questions in this section were structured in a way that would highlight key challenges faced by the PMO. The questions were developed in such a way that they would enable respondents to precisely identify the main challenges faced by the PMO. The data will be gathered quantitatively and the results will then be correlated with those of other sections to establish the extent to which these variables influence the successful outcomes of PMO. The survey questions in this

section are divided into four parts namely: i. Organizational challenges, ii. Process challenges, iii. Technology challenges and iv. Situational challenges. Frequency distribution measures will be used to analyse the implications of the results. The questions in this section were selected based on five categories. These are i. Critical problem, ii. Significant challenge, iii. Minor issue, iv. Not a problem, v. Not applicable. For instance, question 21 will establish the areas which PMO experience the most challenges. Question 22 will establish process challenges, question 23 will establish challenges associated with technology while question 24 will establish the situational challenges. These factors will measure PMO process challenges and were developed the theoretical framework and literature review. They were also identified in the literature review, to be the core challenges that PMOs have to contend with during implementation

d. Section Four : PMO Effectiveness

PMO effectiveness will be assessed in section four of the survey. This section is largely self-assessed reporting. The reporting is self-assessed, as no other performance data was collected from the PMO). The variable being measured here is PMO effectiveness. Similar to the other variables, the responses will be analyzed and correlated with those from other sections to determine how they influence PMO maturity levels, and to what extent effectiveness is influenced by PMO challenges. Ultimately, the results from all sections of the survey questionnaire will be correlated to establish the relationship between all three variables. These section contains two key questions which are question 25, which is self assessed as to how respondents rate PMO effectiveness in their organizations. Possible responses to this question include outstanding, very good, good, fair and poor. This self assessment approach was selected as it would enable the participants to convey their perception of PMO effectiveness. Question 26 will establish the criteria used to come to these self-assessment of PMO effectiveness, such as i. Internal relationships: This is how the PMO manages relationships and assignment of tasks among PMO staff ii. External relationships: This is how the PMO relates with the rest of the organisation and elements outside

the organisation. In essence, this entails the public relations structure, iii. Organizational culture: This relates the structures, attitudes and beliefs laid down by the organisation, and which ultimately affect the effectiveness of PMO, and iv. Timely delivery of projects: This is determined by how PMO's ability to establish milestones and meet them as well as how effective the PMO is in ensuring that projects are completed within the scheduled time. These are precisely related to the literature review as it established that these are some of the factors that indicate the effectiveness of PMO.

e. Section Five: Recommendation

Section five addresses the recommendations. Question 27 seeks to establish whether the objectives of PMO were met. Question 28 evaluates whether the PMO process was successful While question 29 seeks to find out the planned initiatives for 2011.

Recommendations will be based on the perception of the respondent as to the most suitable strategies or changes to enhance PMO effectiveness. In this case, recommendations are likely to be based on the perceived effectiveness of PMO. Effectiveness is based on the extent to which PMO was able to meet its objectives.

II. Research Design

a. Sample

The sample for this study will be drawn from various government PMO sections. A total number of twenty eight (28) PMOs from different government organisations will be included in the study. Eighty respondents have been targeted from the 28 different organisations for the survey questionnaire and will be drawn from different positions within the PMO. The study will target the director of the PMO, sponsors

and other stakeholders, PMO staff, Project Manager, Supporting Consultant or vendor as well as other relevant PMO participants. PMO directors and other PMO staff will also provide this study with the necessary insight of the various methodologies and strategies they are using to deal with PMO challenges and enhance effectiveness. The main difference in the survey questionnaire for PMO staff and that of PMO directors is that the questionnaire used for directors contained the demographics section that provided the general information of the organisation. This section was not included in the survey for PMO staff as it was not necessary to have the same information repeated. As such, the demographic information was provided by only one individual in the PMO, the director.

Out of the twenty eight (28) government PMOs that were approached, only twenty four (24) participated, with a total of sixty nine (69) PMO staff responding to the questionnaire from the eighty who were targeted. The questionnaires were distributed electronically to two sections, The PMO directors (<http://www.buid.ac.ae/survey/pmochallenges.htm> -) and PMO staff members. (http://www.buid.ac.ae/survey/pmo_challenges_staff.htm)

b. Questionnaire – The Quantitative Measure

Measurements used in studies must be statistically valid, reliable and objective. The data from a collected representative population may be projected to the wider population if the sample size was valid to reflect the whole population that the study is interested in (Carmines, 1991). The survey questionnaire for this study will be using two types of questions, which are multiple choice closed ended questions and Likert Scale. A summary table will demonstrate how the two measures are covered in the questionnaire.

The following is a Summary table 5 of the TWO types of questions that will be covered in the questionnaires

	Total No. of Questions	Type One : Closed Ended Question Radio Button (one option)	Type Two: Closed Ended Question Check Box (Multiple Option)	Type Three : Scale
Rating Scale	-	Multiple Choice Questions	Multiple Choice Questions	Likert Scale
Section One : Demographic	15	13	2	-
Section Two: PMO Maturity & Performance	5	5	-	-
Section Three: PMO Challenges	4	-	-	4
Section Four : PMO Effectiveness	2	-	-	2
Section Five : Recommendation	3	1	1	1

Table 5: Summary of the two measures covered in the survey

Closed-ended multiple-choice questions usually limits the participant's answers to the survey. The study respondents are allowed to select either a set of dual questions such as true/false, yes/no. Others may include a extra choice such as "Other"

There are two types of multiple-choice questions. These are:

1. Radio button one option: This is a form of graphical interface that enables the users to select only one answer from a set of pre-established options. The following is an example of radio buttons measures.

Example

What is your role?

Director Manager of PMO	(=1)
PMO Sponsors/Stakeholders	(=2)
PMO Staff	(=3)
Project Manager	(=4)
Functional Manager	(=5)
Supporting consultant / Vendor	(=6)
Others	(=7)

ii. Check box- multiple option:

This type of interface allows the user to multiple answers from provide options.

Example: -

What is the Scope and Span of PMO Services in the organization?

Enterprise	(=1)
Line of business/Business unit	(=2)
Engineering Dept	(=3)
Product Dept	(=4)
Marketing Dept	(=5)
IT Dept	(=6)
Others	(=7)

Measure two: Likert scale

The likert scale was developed by Rensis Likert and presently among the most popular itemized scales. Usually, the endpoints for the scale are strongly agree or strongly disagree and participants are required to indicate the extent to which they agree or disagree with the statement. The data is also commonly treated as ordinal scale and it is crucial to apply consistent procedures in scoring the total score for each participant (Knapp, 1990). This implies that the selected score, high or low, should be consistent in demonstrating a favourable response. Categories that are assigned to the negative statements by questionnaire respondents should be scored by reversing the scale. This implies that if the statement is negative, then an agreement indicates that the response is unfavourable and vice versa. This also implies that a strongly agree response to positive statement and a strongly disagree response to a negative statement would have five scores each.

Example: -

	Critical Problem	Significant Challenge	Minor Issue	Not a problem	Not Applicable
Metrics & Reporting	(=1)	(=2)	(=3)	(=4)	(=5)
Ineffective / Obsolete Tools	(=1)	(=2)	(=3)	(=4)	(=5)
Lack of Infrastructure	(=1)	(=2)	(=3)	(=4)	(=5)

Analysis of challenge data required the assignment of numerical values to each responses, which ranged from 1-4 as noted above. Blank responses, or those marked with N/A were excluded from the population that was used to establish averages. This enabled the dashboard method to facilitate the visualization of a set of large and complex data sets. Color coding was used to differentiate the values. However, the calculations and assigned values on the values do not

represent statistical relevance and therefore should not be used to deduce approximate values in the spread of responses.

c. Questionnaire Process

The researcher will approach the PMO sections of each government organization to request their participation. For more details please see appendix 5: A Copy of Letter “To whom it may concern“ Survey participation. The questionnaires will be distributed via electronic means, which will be sent to PMO section in each of the government organizations and distributed to PMO heads as well as other project participants.. SNAP software will be used to collect the data from the PMO sections. Once the participants have answered the questions, they will be saved in excel sheet format, later to be analyzed using correlation tools of SPSS. The analysis will ultimately be summarized in a graph presentation.

d. Interviews – The Qualitative Measure

The qualitative method involved using interviews to gain further understanding the status of PMOs in government institutions. Six (6) PMO heads will be interviewed to provide a case study of PMO. For more details please see appendix 6: A Copy of Letter “To whom it may concern“-Interview participation. The qualitative methodology is a method of data gathering, which involves comprehensive investigation of all factors related to the research problem, gathering more than data, which are the individual attitudes of participants, their experiences and perceptions. In this case, using the interviewing qualitative method will enable the research to understand the context of PMO challenges, including how these challenges emerge and are subsequently addressed. The interviews will provide a value added comprehension of the behaviours and motivation that influence participants as they play their roles within PMOs.

The following is a complete list of questions that will be asked during the interview.

Section 1:PMO organisation and structure

1. What is your role?
2. Does your organization Have Multiple PMOs?
3. PMO's in your organizational structure?
4. What is the Total Number of Employees in your Organization?
5. How did organization establish PMO?
6. Established PMO as : ?

Scope and span

7. What is the Scope and Span of PMO Services?
8. What is the General Scope of PMO Responsibilities?
9. What are your PMO Functions?
- 10.PMO Line of reporting?
- 11.PMO Staff Size?
- 12.What are the Number of Constituents Supported by PMO?
- 13.What is the PMO Time in Service?

Self-Assessment of PMO performance

- 14.Based on your observation, is your PMO at
 - a. level 1: Most Business Processes are informal or undefined
 - b. Level 2: Most Business Processes are defined, but not well adopted
 - c. Level 3:Most Business Processes are defined, repeatable and followed

- d. Level 4: Most Business Processes are aligned and have performance measures
- e. Level 5: Most Business Processes are optimized and continually improved based on their performance

15. What is the scope of your PMO?

16. Which methodologies are being employed?

PMO Challenges

17. What are the Operational Challenges?

18. Were PMO objectives met?

19. What is your Assessment of PMO Success?

CHAPTER 4 :

DATA ANALYSIS & RESULTS

"The greatest challenge in a picture is when it forces us to notice what we never expected to see".

John W. Tukey.

I. Quantitative Analysis

a. Section One: Demographics

The survey questionnaire was sent to twenty eight (28) government PMOs. Out of these number, only twenty four (24) PMOs participated, with a total of sixty nine (69) PMO staff responding to the questionnaire from the eighty who were targeted. The following section provides a detailed review of the findings from the responses of survey participants.

- **Responses by Role**

Figure 5 indicates that the responses of participants based on their roles within the PMO. The highest number of survey participants was by PMO staff who averaged 39% of the total sample. The following group, in terms of size were Director Managers of PMO who formed about 33% of the total sample. Project managers were 23%, supporting staff and others 1.45% and 2.90% respectively. Since the questionnaire was a self-assessment, the respondents were expected to be relatively objective about their perceptions of the PMO.

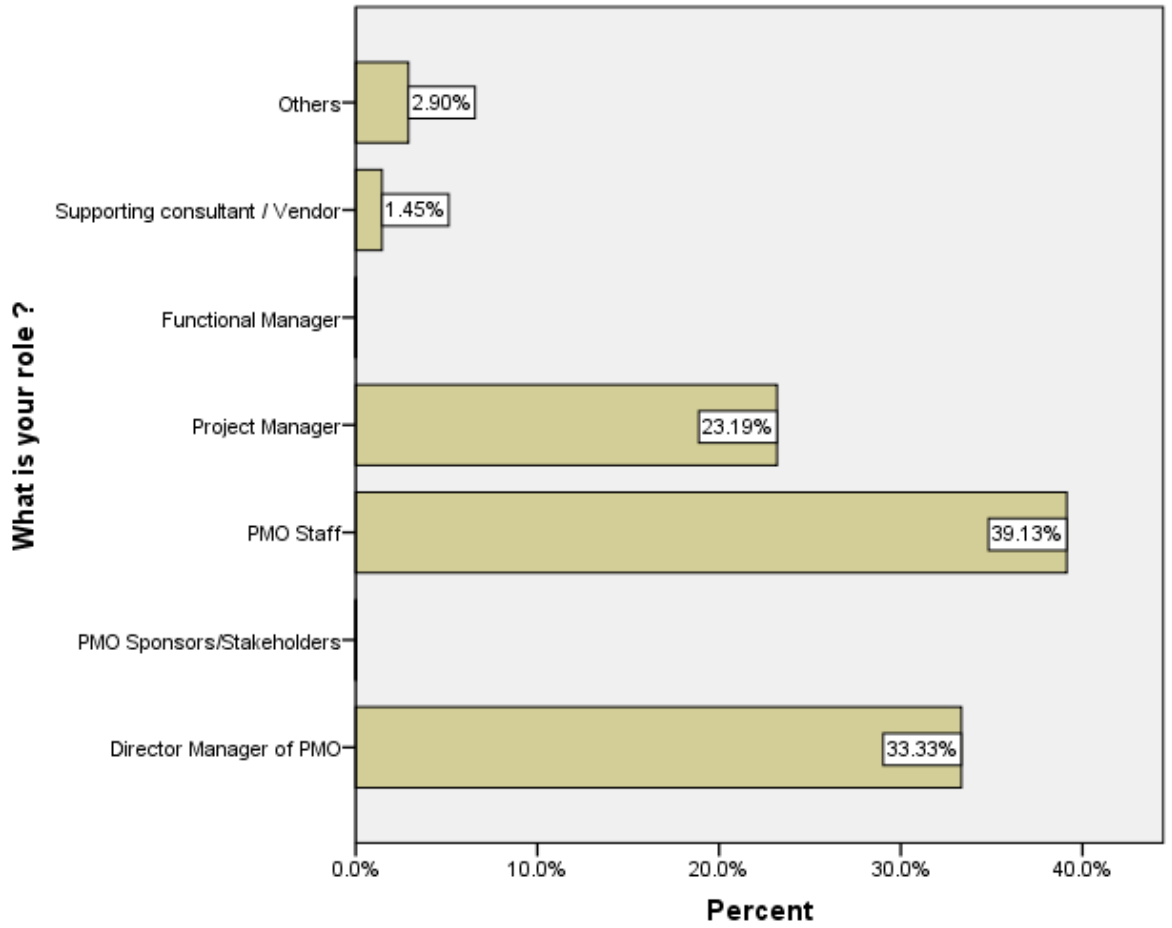


Figure 5: Responses by role

- **PMO Organization and Structure**

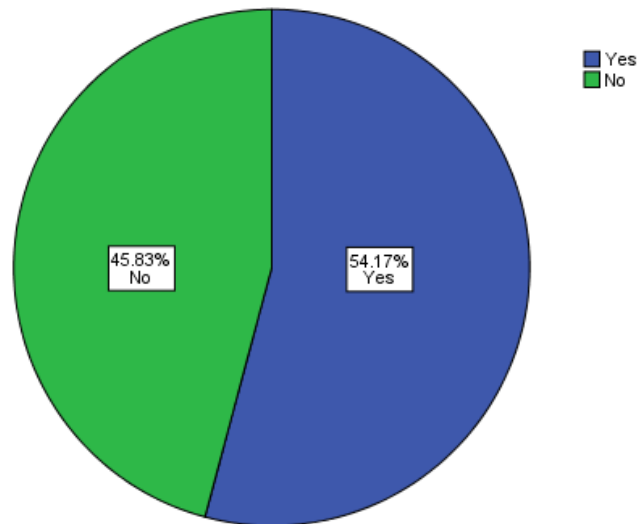


Figure 6: Does your organization have multiple PMOs?

Regarding the structure of PMO within the organization, 54.17% said that their PMO had multiple structures, while 45.83% responded that their PMO did not have multiple structures. As such, it will be noted that organizations with multiple structured PMOs served as a way to harness other project activities, distribute resources and monitor progress.

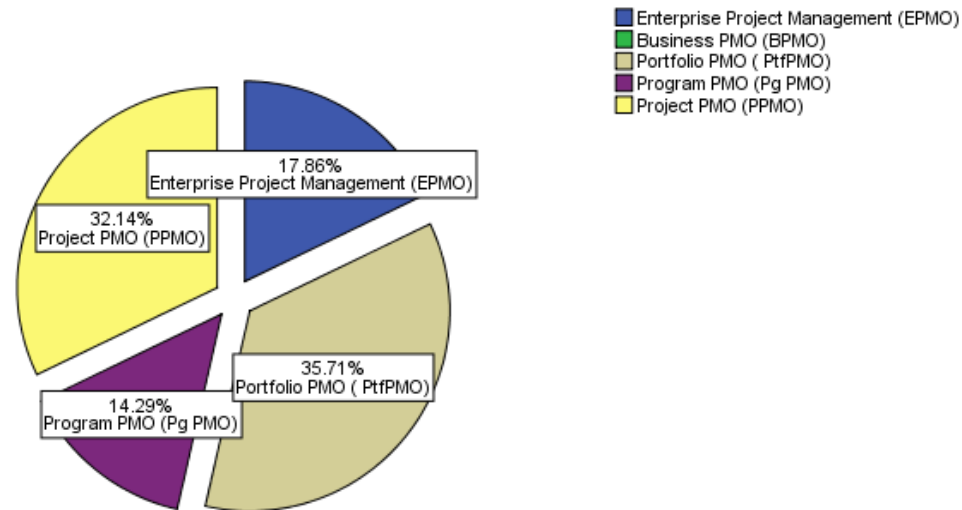


Figure 7:PMO’s in your organizational structure

Figure 7 demonstrates the percentage of respondents regarding PMO structure. In terms of specific structure of PMO, the 35.71% of the respondents indicated that said that their organization had a Portfolio management PMO (PtfPMO), 32% indicated a project PMO (PPMO), 17.85% of the respondents said that theirs was an enterprise project management PMO (EPMO) and 14.29% said that their structure was a Program PMO (Pg PMO).

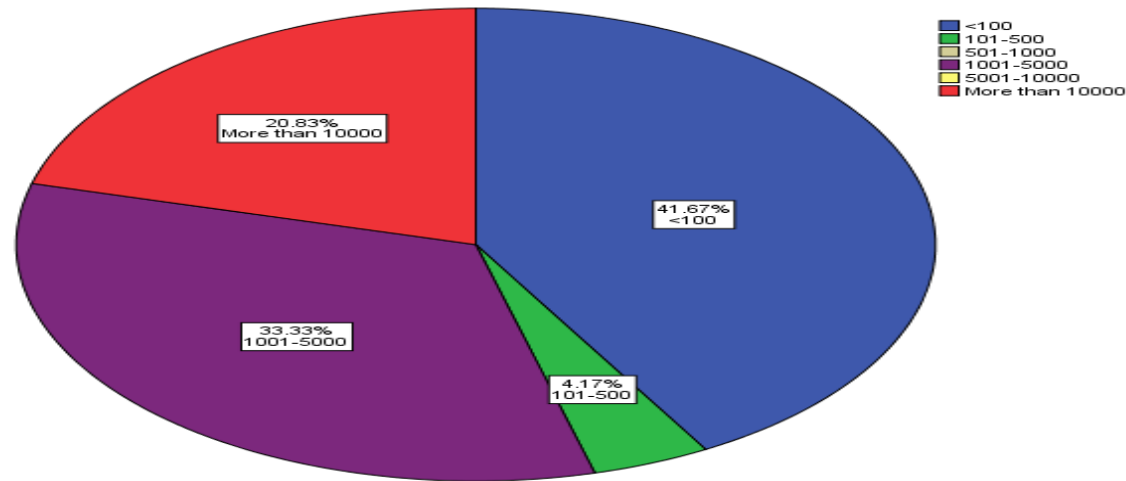


Figure 8:What is the Total Number of Employees in your organization?

Figure 8 indicates the responses from participants regarding the number of employees working within their PMO. About 41.67% of the respondents indicated that there were less than 100 individuals working in the PMOs. 33.33% indicated that the numbers of workers in their PMO ranged between 1001-5000 while 20.83% indicated that there were more than 10000 individuals working within the program. About 4.17% indicated that there were between 101 and 500 individuals working within their PMO.

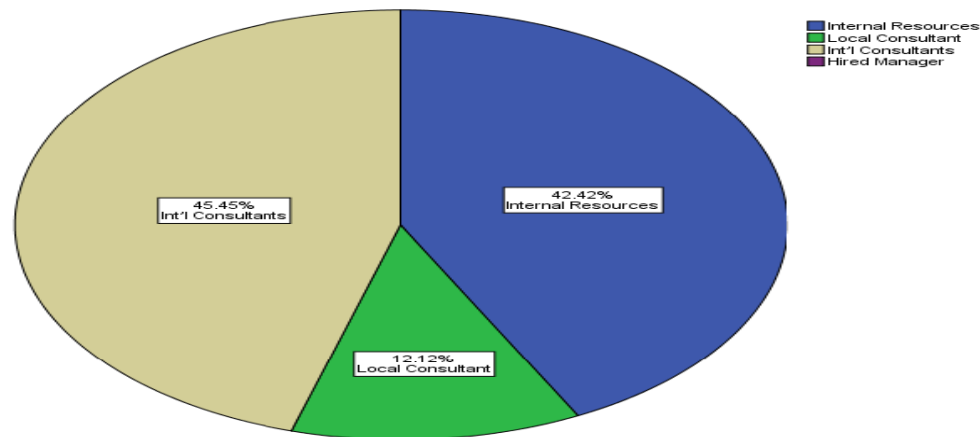


Figure 9:How did organization establish PMO ?

Regarding the approach of establishing the PMO within the organization, 45.45% of the respondents said that their PMO was established through a process that involved international consultants, who provided the expertise and special skills required to install an effective PMO. About 42.42% of the respondents said that their organizations relied on internal resources in setting up the PMO without the assistance of outsiders. 12.12% of the respondents said that installing the PMO involved hiring a manager with the specific skills required to set up the program.

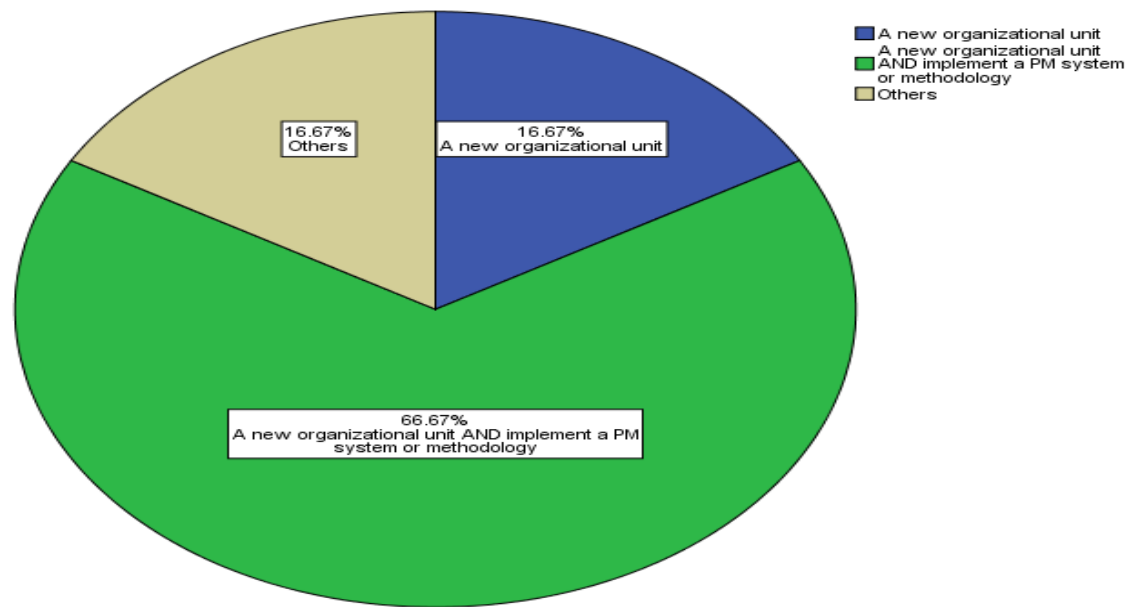


Figure 10:How PMO Established ?

Figure 10 indicates how the PMO was established within the organizations. 66.67% of the respondents said that their PMO was implemented through installing a program management system or methodology while 16.67% indicated that a new organizational unit was established to during the process. About 16.67% of the respondents said the implementation process was done through other approaches.

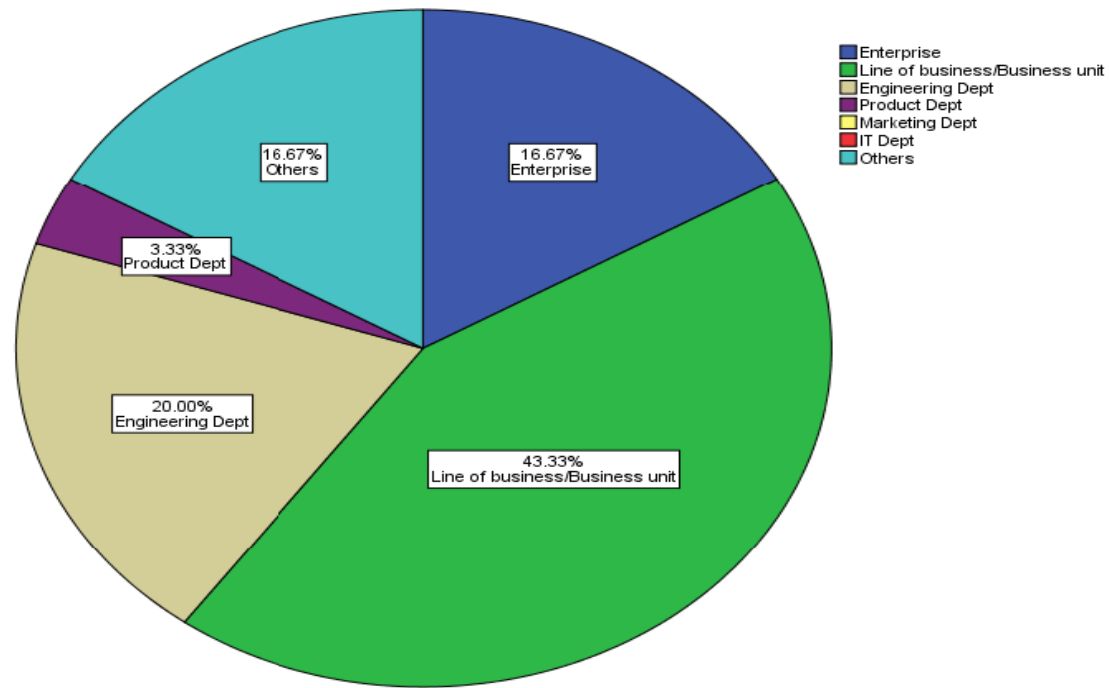


Figure 11:What is the scope and span of PMO services in the organization?

Figure 11 demonstrates the scope and span of PMO services within the organization. About 43.33% of the respondents said that their PMO activities spanned to the line of business or business unit, while 20% said that the activities spanned to the engineering department of the organization. About 16.67% of the respondents said that PMO activities spanned the whole enterprise, with 16.67% indicating that the PMO spanned to other activities not included in the survey questionnaire. A Paltry 3.33% said that their PMO activities involved Product development departments.

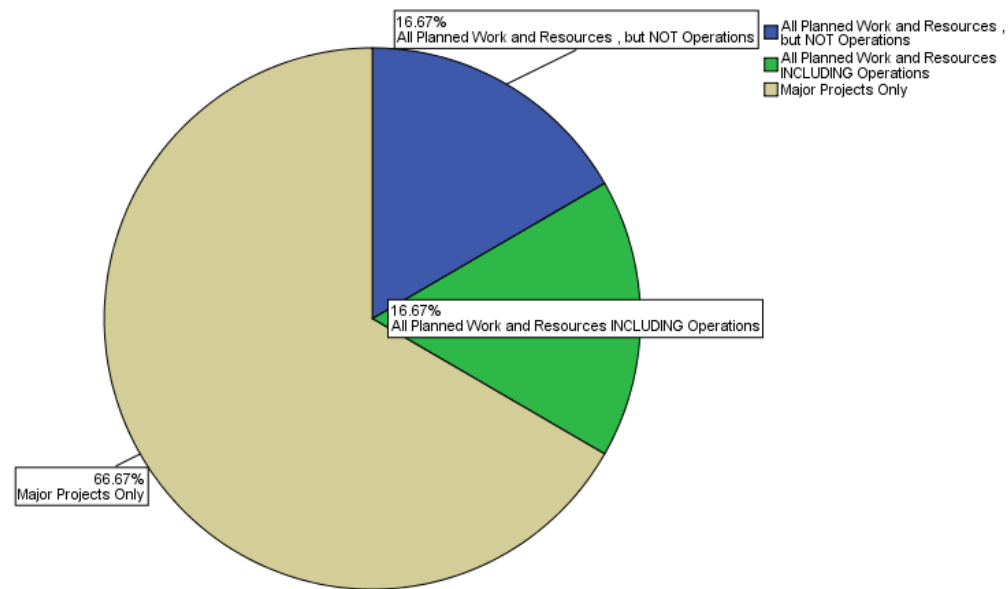


Figure 12 :General Scope of PMO Responsibilities?

In terms of the scope and span of PMO responsibilities, 66.67% of the respondents said that their PMOs were responsible for major projects only. About 16.67% said the responsibilities of their PMO extended to all planned work and resources but did not involve operations while 16.67% said that their PMOs were responsible for all planned work and resources including operations. The above diagram indicates the percentage distribution of the responses.

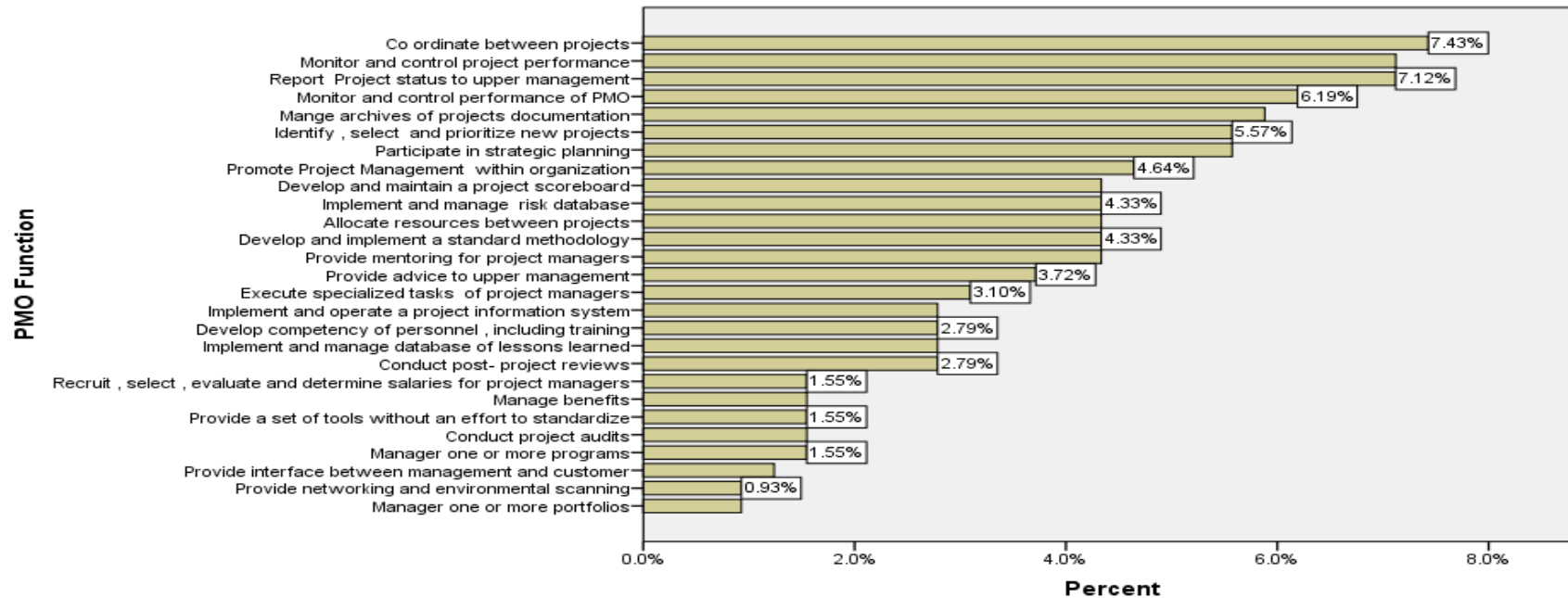


Figure 13:PMO Functions

This is a summary of the functions of PMOs as indicated by the study participants. Notably the majority of respondents (7.43%) said that their PMOs were charged with coordinating activities between the projects, while the least number of respondents ((0.93%) said that their PMOs managed one or more portfolios or facilitated networking and environmental scanning. About 4.3% of respondents said that their PMO was charged with identifying and selecting new projects for the organization, while 7.12% said that their PMOs were charged with reporting the status of the projects to upper management. Figure 13:PMO Functions.

- **PMO Line of Reporting, Naming, Staffing and Tenure**

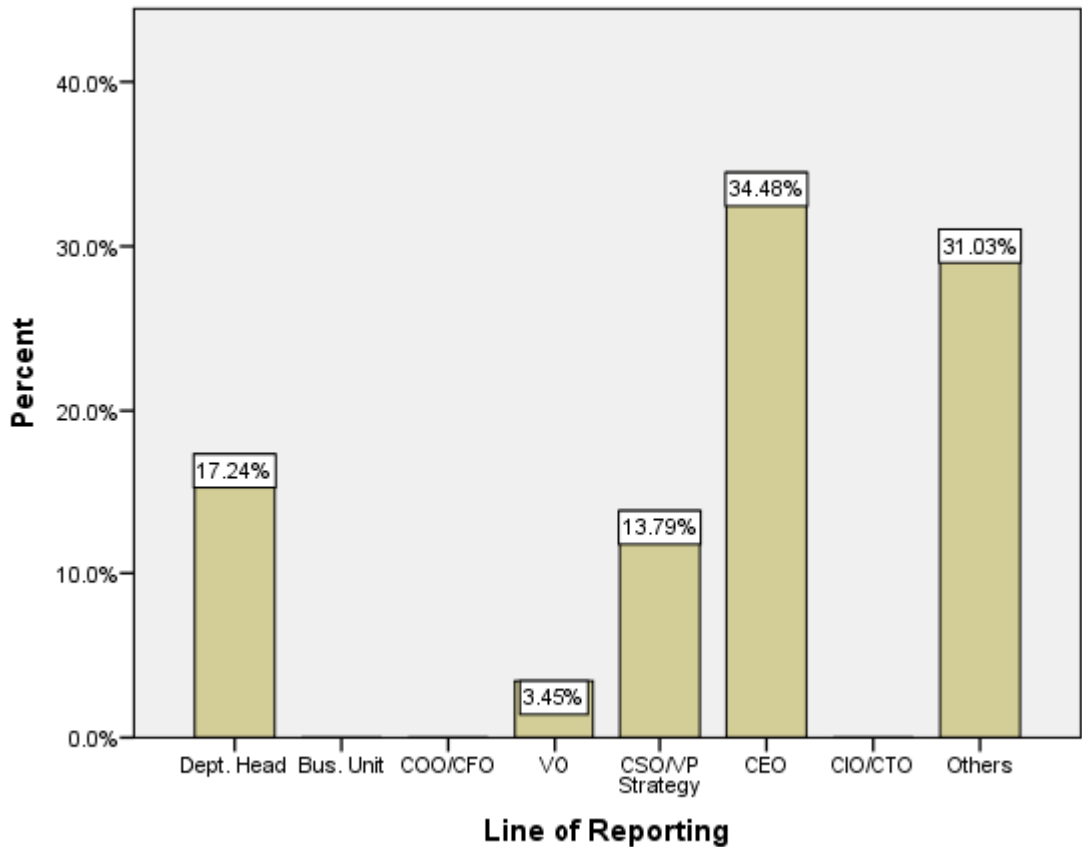


Figure 14:PMO Line of Reporting

In regards to PMO line reporting, naming, staffing and tenure, the highest number of respondents (34.48%) they reported to the CEO, while 21.03% said that they reported to other upper management not indicated in the survey. 17.24% said that they reported to Departmental heads, with 13.79% saying that reporting was through CSO/VP strategy.

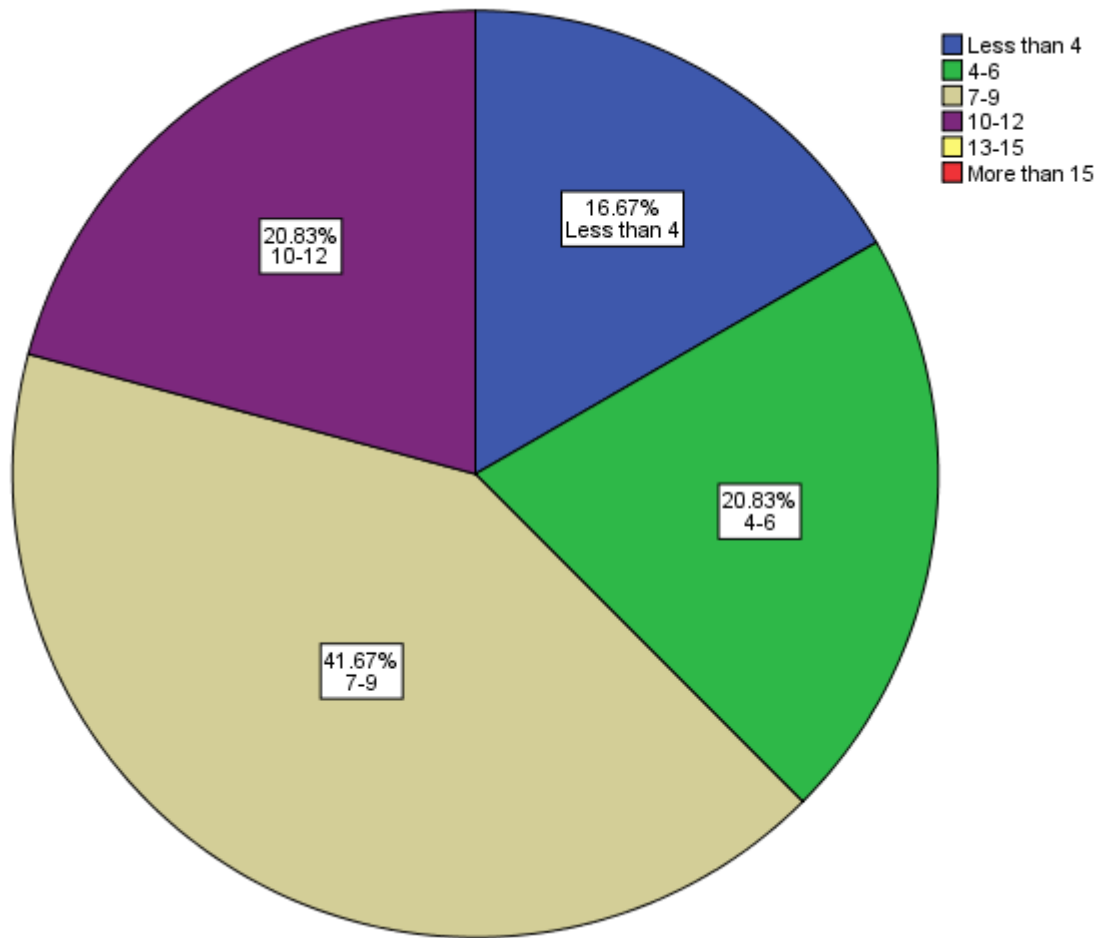


Figure 15:PMO Staff Size

In terms of the size of the PMO, 41.67% indicated that the staff was comprised of between 7-9 individuals, 20.83% said that staff comprised of 10-12 staff members, with 16.67 indicating that there were less than 4 staff members in their PMO.

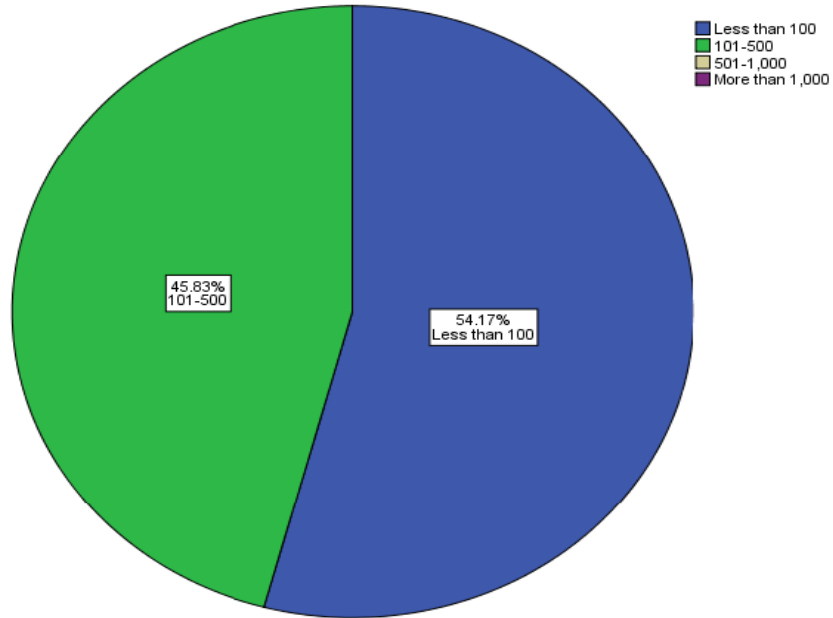


Figure 16: Number of Constituents Supported by PMO

Regarding the constituents supported by the PMO, 54.17% said that less than 100 constituents supported their programs while 45.83% said that the constituents that supported their PMO were between 101-500.

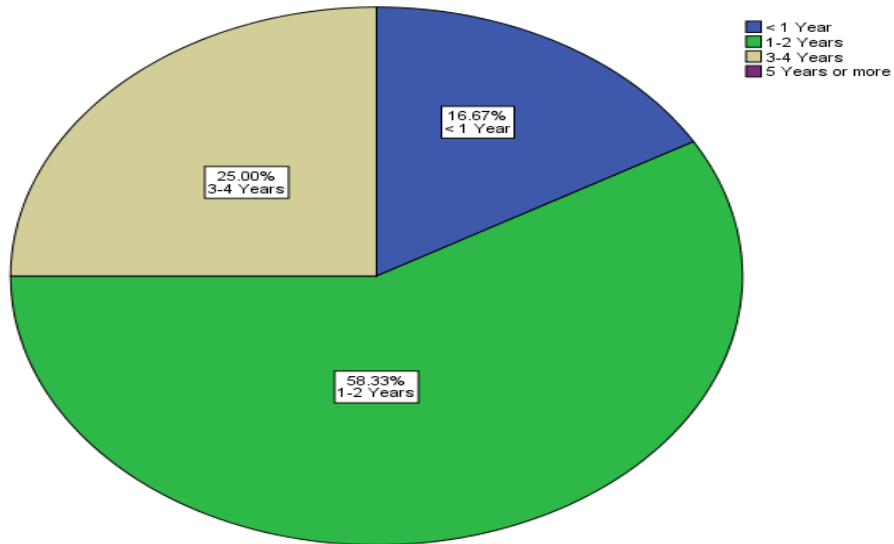


Figure 17:PMO Time in Service

The time service in this case, was either the projected time that a PMO was intended to exist, or the time that an already dissolved PMO had existed. 58.33%, the highest number of respondents said that their PMO had lasted, or was intended to last between 1 and 2 years. About 25% said that their PMO existence scope was projected at 3-4 years while 16.67% indicated that their PMOs lasted less than one year.

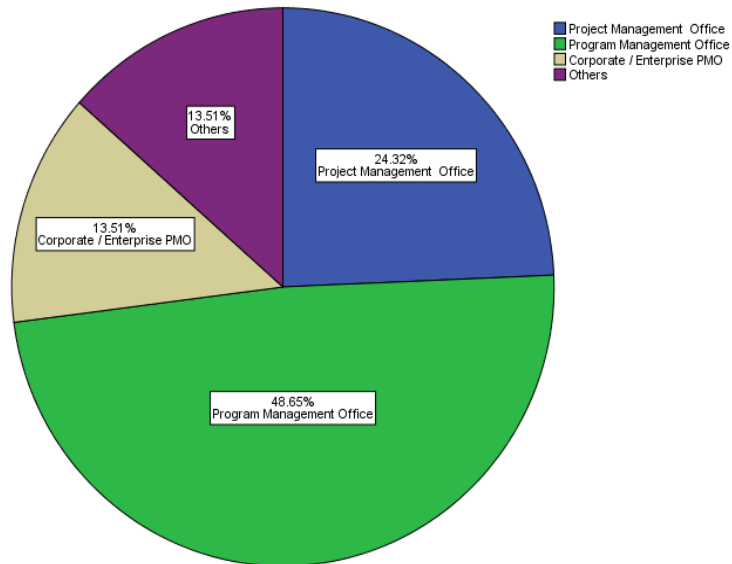


Figure 18: Typical names of PMO

In terms of the terms used to refer to PMOs, Program Management Office (PMO) was established as the most popular reference at 48.65%. Project management Office came in second at 24.32% and corporate enterprise PMO scoring 13.51%. About 13.51% indicated that they used other terms not featured in the survey to refer to their PMOs.

Various references were also used for PMO heads with 50.33% referring to them as PMO director, 20.83% calling them managers, 16.67% using other terms and 4.1% referring to them as chief or Vice President.

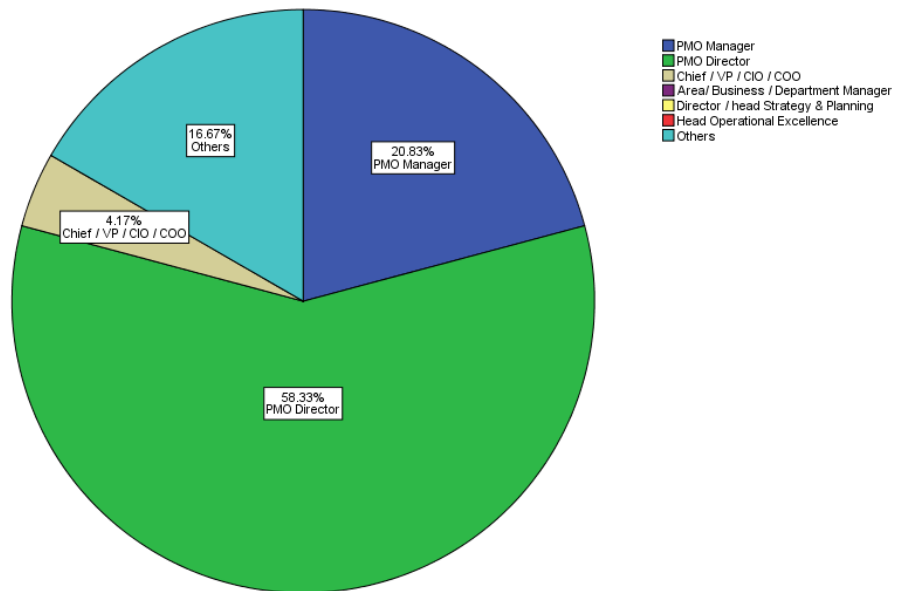


Figure 19:Title of PMO Head

Preferred reference for PMO heads was PMO director at 58% and the least popular reference being VP, CIO and CIO. PMO director was also the preferred references used in the reviewed literature regarding PMO and PMO processes and leadership.

b. **Section Two: Process Maturity and Performance Level**

- Self Assessed Process Maturity

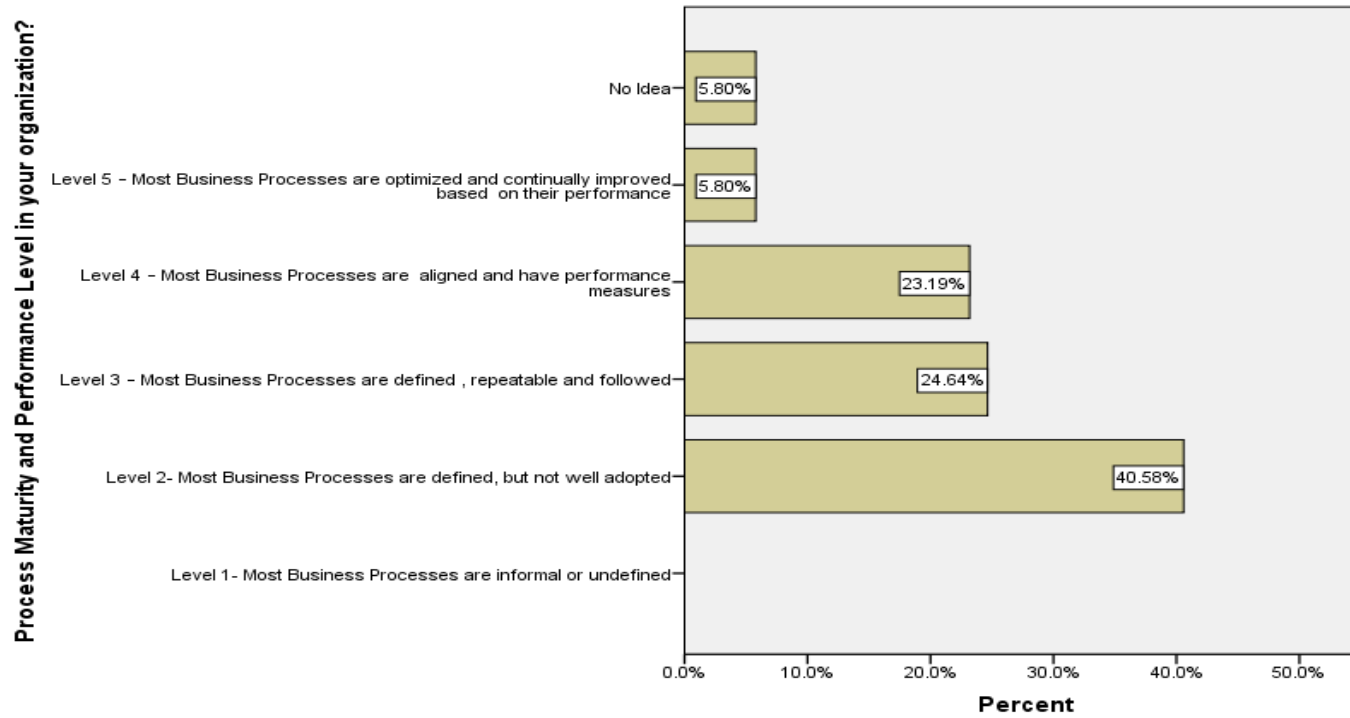


Figure 20: What level is the PMO Maturity Level in your organization?

Regarding the question that sought to established PMO level of process maturity, the highest number of respondents (48.58%) said that their PMO was at level two where most business processes were defined, but were yet to become well adopted. About 24.64% answered that their PMO process maturity was at level three, where most business processes are defined, repeatable and followed, while 23.19% said that their PMO was at level four, where most business processes are aligned and have performance measures. About 5.80% said that their PMO was at level five, with most business processes being optimized and on ongoing improvements based on their performances. 5.80% did not know what level of maturity their PMO was in, while there was no PMO at level one, which is characterized by undefined business processes.

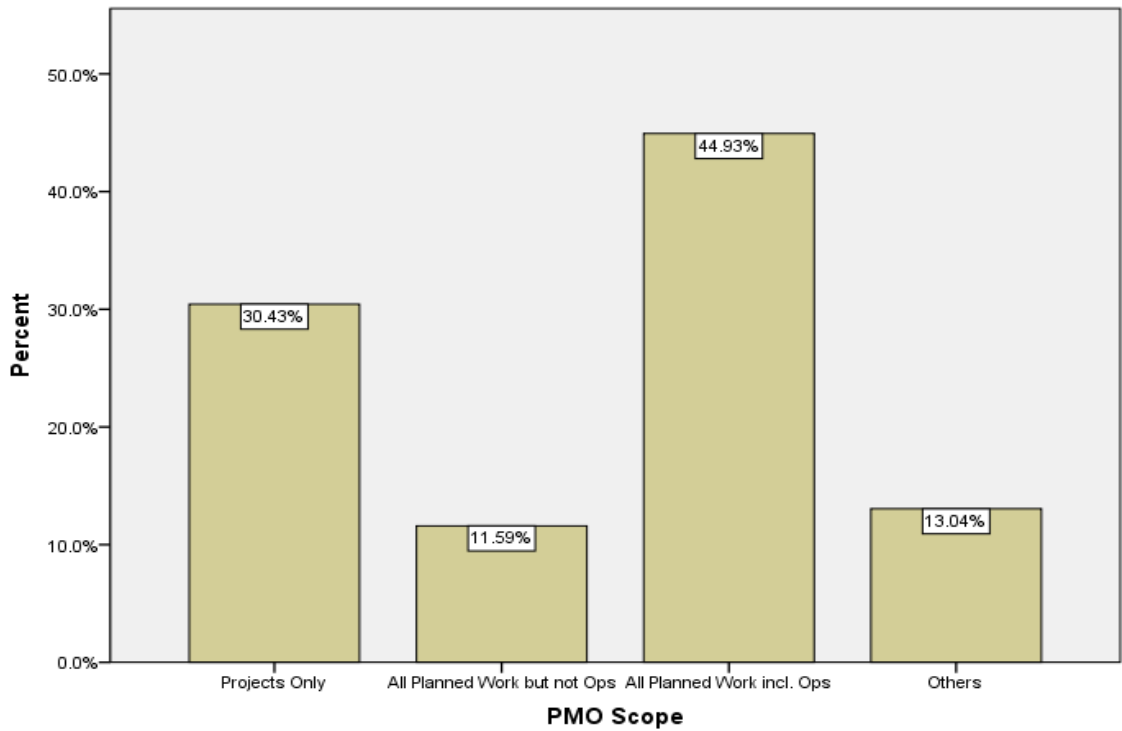


Figure 21:PMO Scope

Moreover, the self-assessment of PMOs by respondents indicated that 44.93% believed that their PMOs were at an all planned out work stage including operations, 30.43% believed that their PMOs were at the project only level. 13.04% believed that their were at another stage not indicated in the questionnaire while 11.59% believed that their PMO was at all planned work stage but missing in operations.

- Type of Processes Being Employed

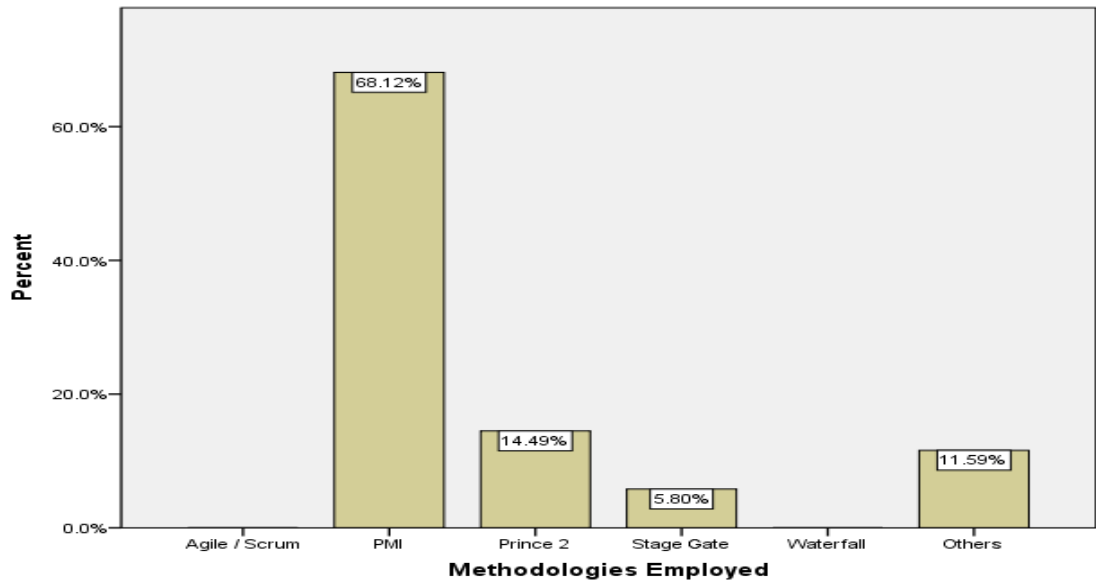


Figure 22:Methodologies Employed

Regarding the methodologies employed by the PMO, the highest number of respondents (68.12%) indicated that their PMO used the PMI methodology. 14.49% said that their PMO followed the Prince 2 method, 11.59% said other methods were followed while 5.80 stated that the stage gate method was utilized.

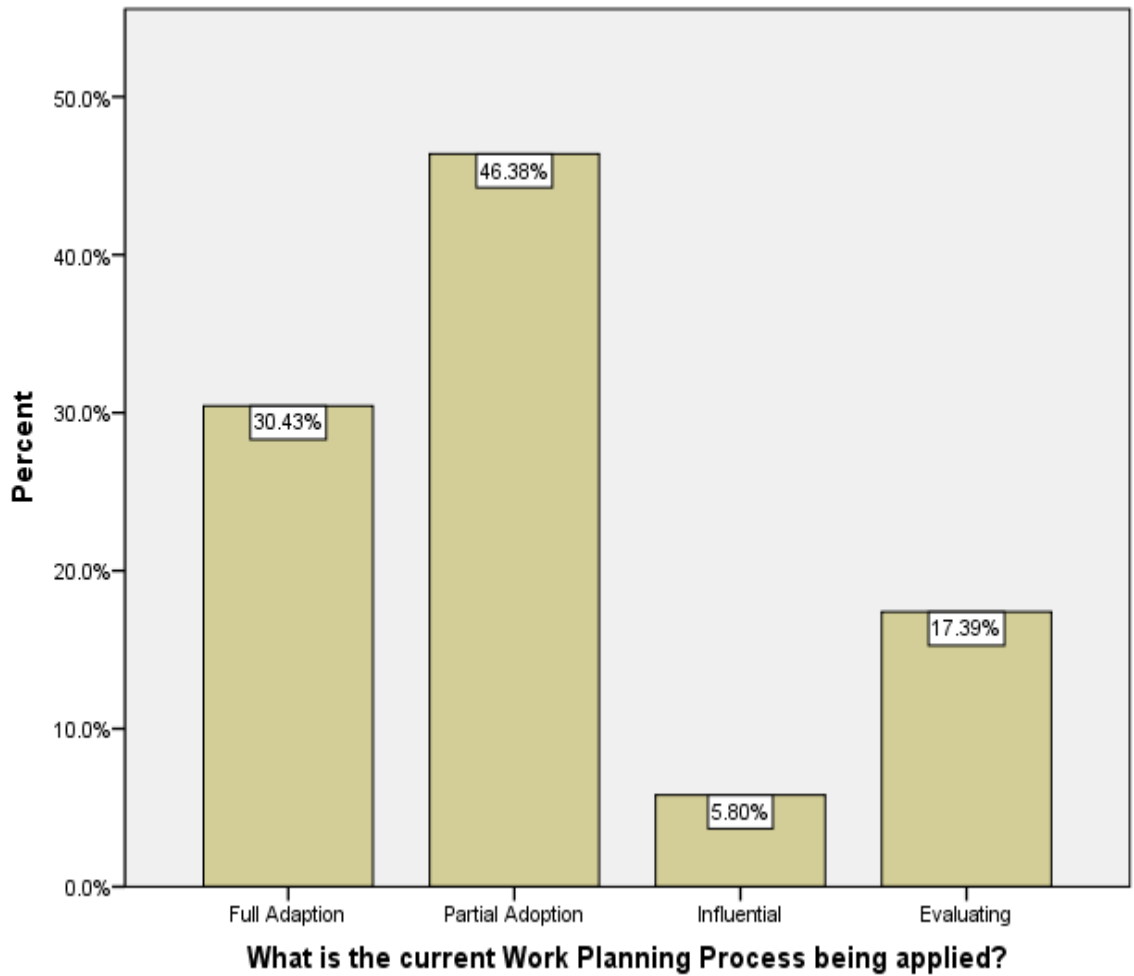


Figure 23:What is the current Work Planning Process being applied?

In terms of work planning, 46.38% said that their PMO was at the partial adoption stage, 30.43% said they were at full adoption, 17.39 at evaluating and 5.80% at the influential level.

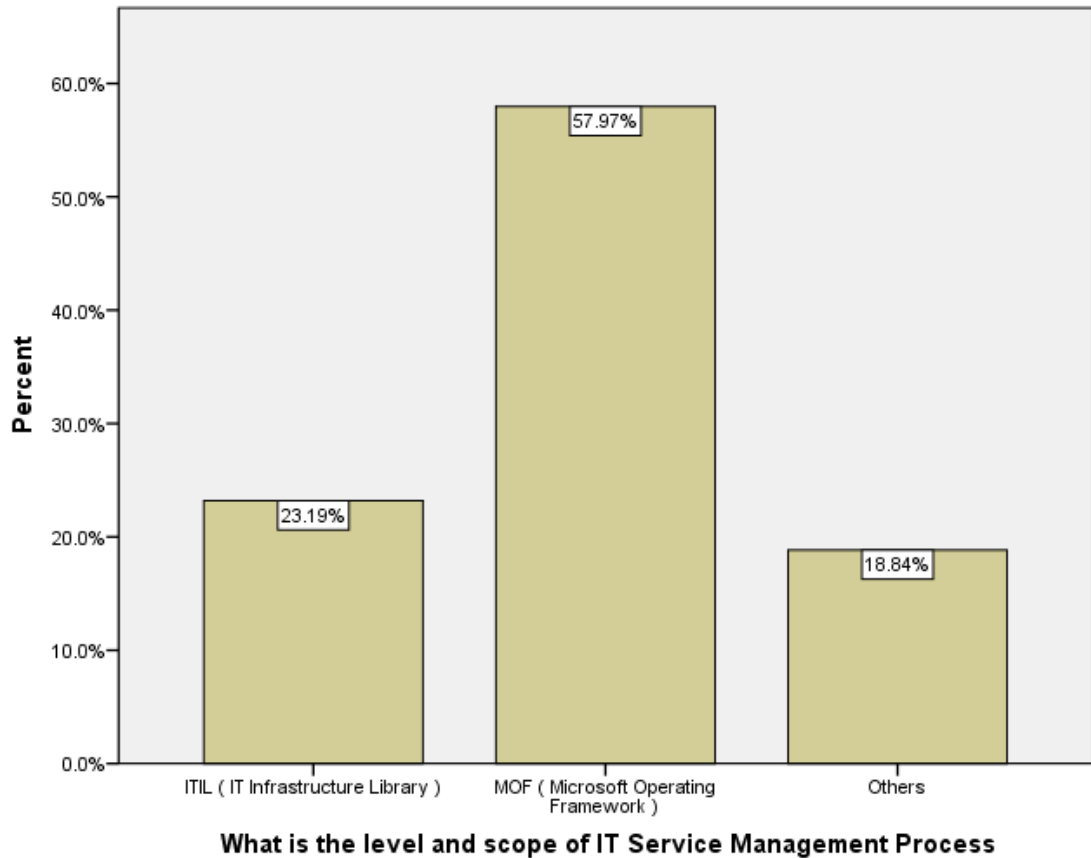


Figure 24: What is the level and scope of IT Service Management Process?

About 57.97 of the respondents stated that their PMO utilized the Microsoft operating framework, 23.19% used IT infrastructure library (ITL) while 18.84% used other applications.

However, the results of this questionnaire are only accurate as far as the perceptions of individual PMO employees can be. There survey is therefore likely to be biased based on the perception and information available to individual employees within the PMO. However, reliability and validity is achieved through the large sample used in this study.

c. **Section Three: PMO Operational Challenges**

- Organizational Challenges

The greatest organizational challenge among many respondents (24.44%) was that of inadequate resources. Lack of accountability was also a significant challenge at 17.78% and inadequate PMO staff at 15.56%, Organizational alignment at 13.33% and changing/ unclear expectations at 11.11%. Interdepartmental politics were at 8.89%. The least challenges came from staff turnover and reassignments, organization maturity, management resistance, Lack of training or skills each scoring 2.22%. In regards to process challenges, financial management and process complexity proved to be the greatest challenges with each scoring 19.40%. Lack of formal processes, poor priorities, and undefined strategies each scored 13.43%.

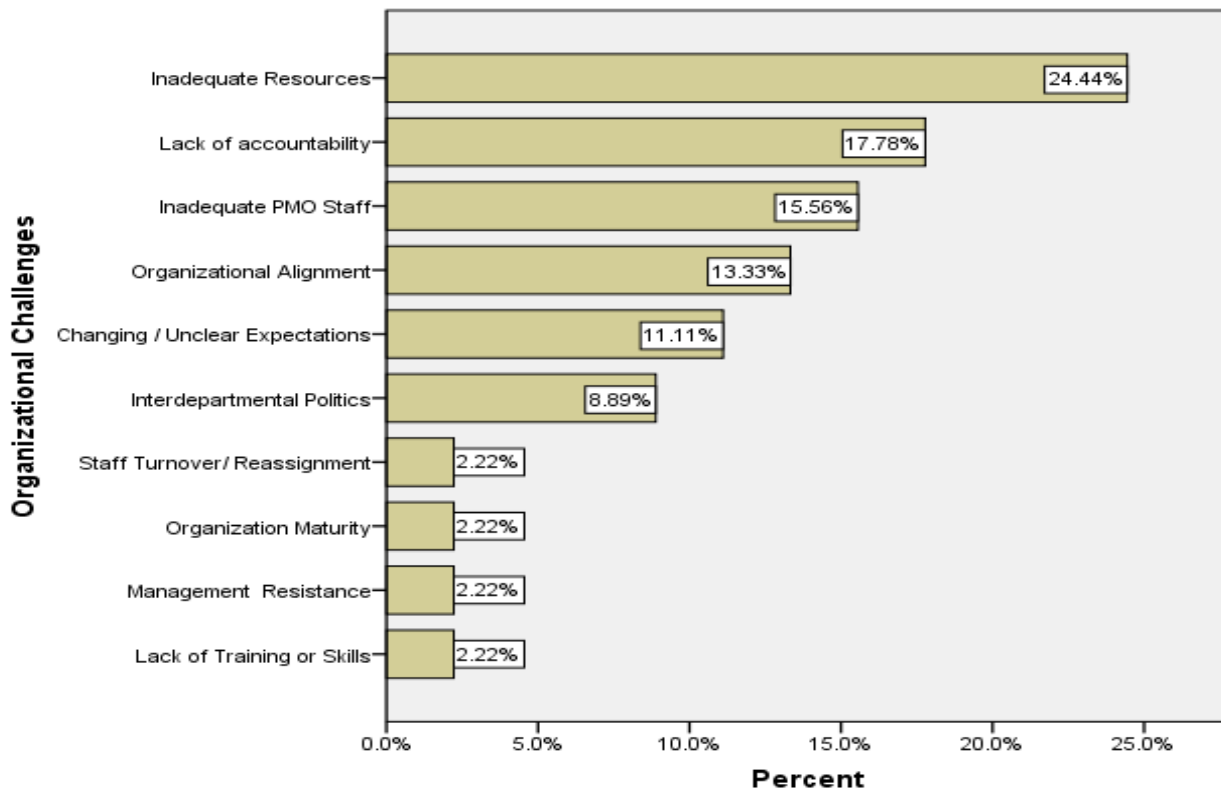


Figure 25: Organizational Challenges

- Process Challenges

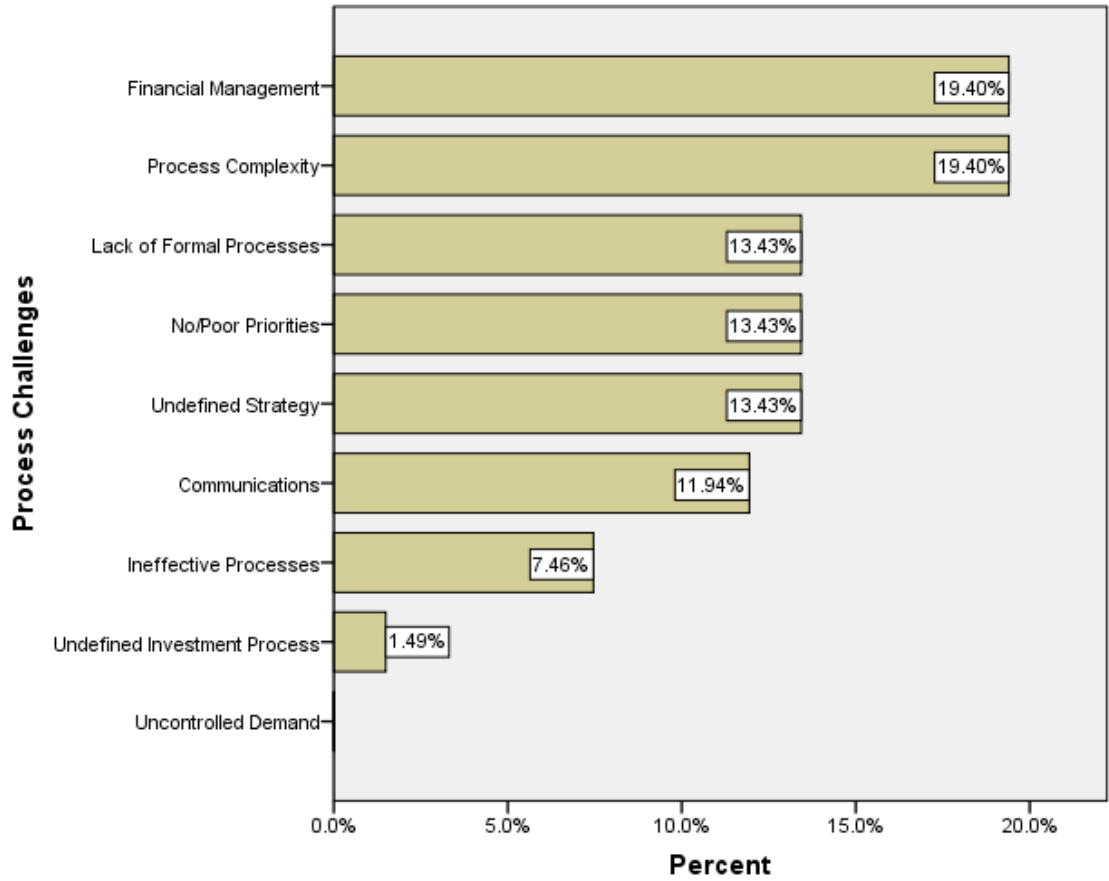


Figure 26: Process Challenges

The most significant process challenge was identified as financial management by 19.40 of the total respondents, while the least undefined investment process cited by 7.46% of the sample.

- Technology Challenges

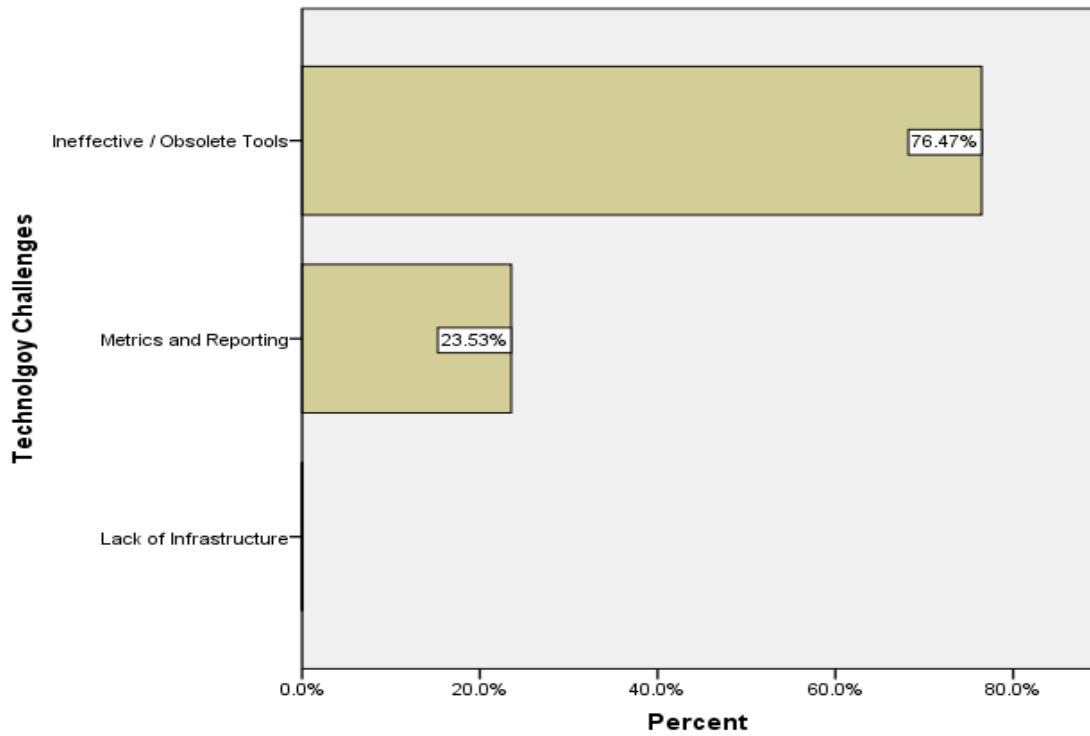


Figure 27: Technology Challenges

For technology challenges, 76.47% of the respondents said observed that ineffective or obsolete tools was the most challenging, while 23.53% indicated that metrics and reporting was the most challenging technological factor.

- Situational Challenges

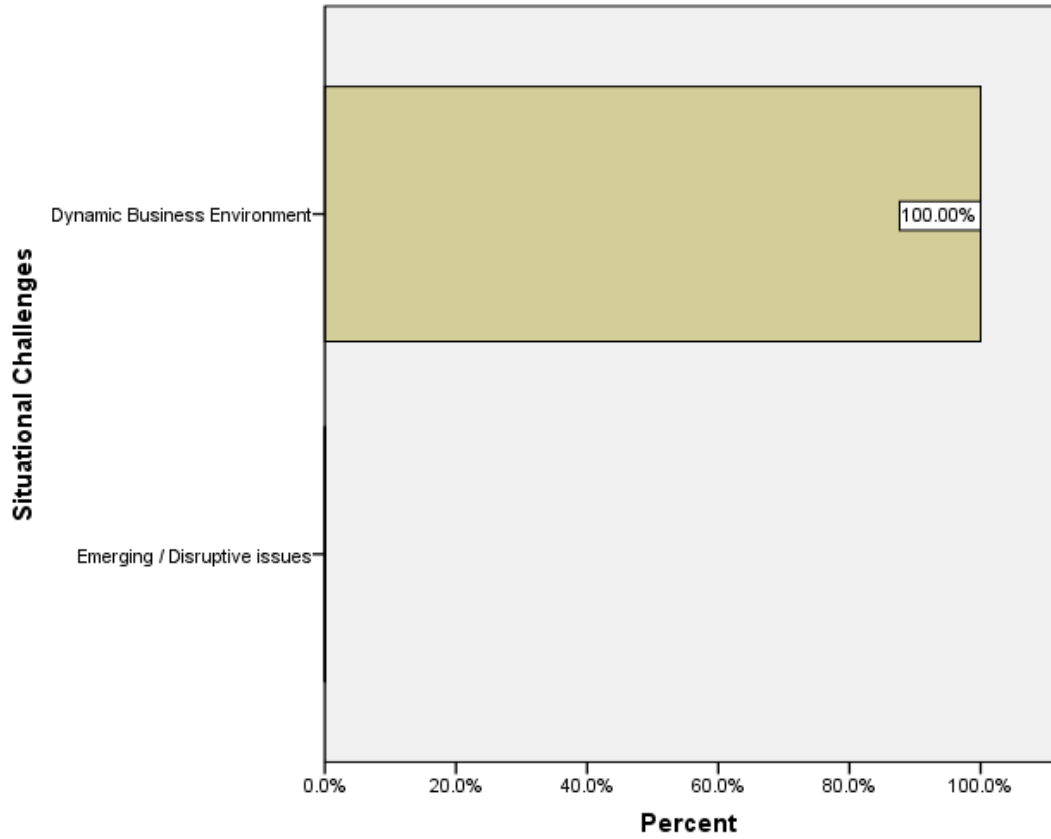


Figure 28: Situational Challenges

For situational challenges, 100% of the respondents stated that a dynamic business process proved a challenge. None of the respondents stated that emerging or disruptive issues was a challenge

- List of all Challenges

Figure 29: All PMO Challenges

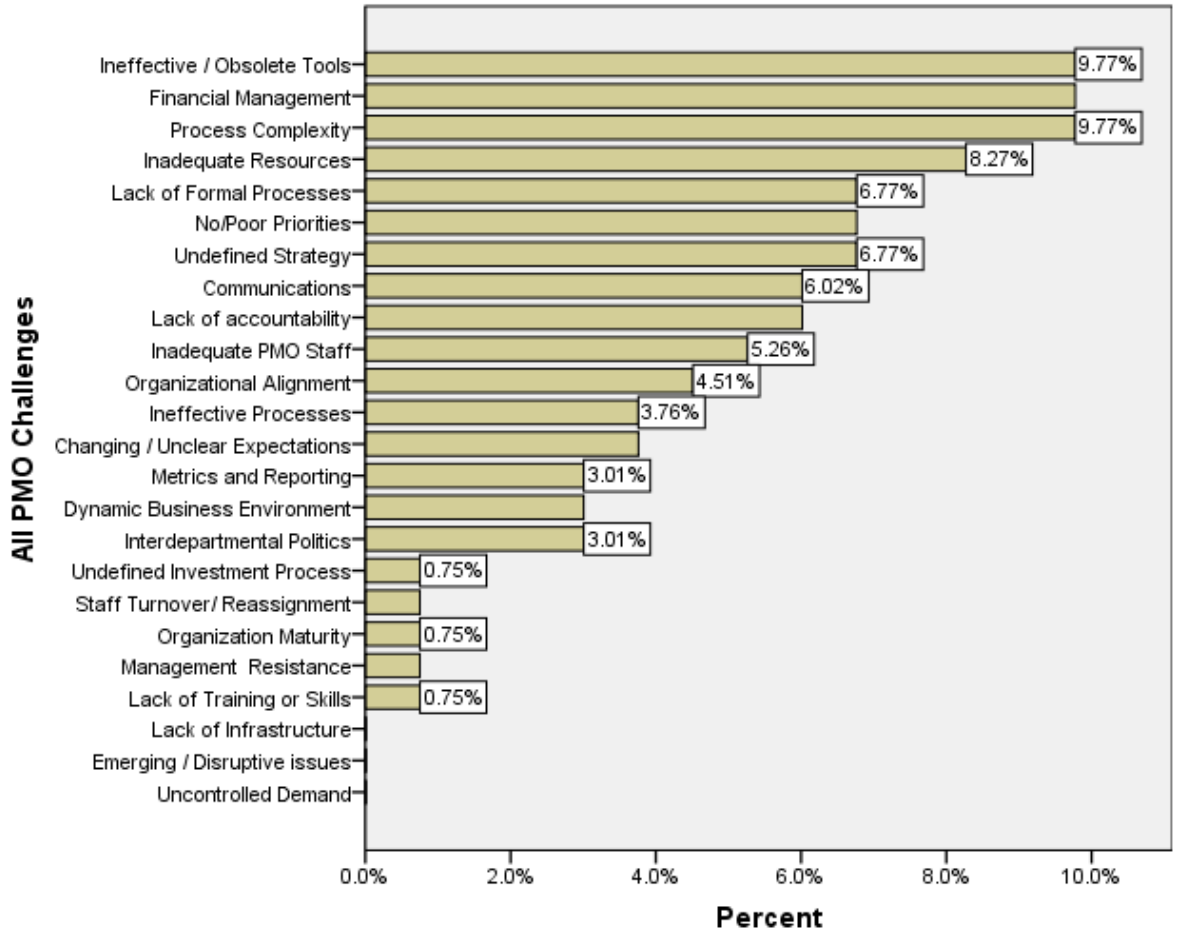


Figure 29 represents the complete test of challenges and the perceptions of respondents in regard to their effects on PMO as well as the extent to which they were experienced by the different PMOs. From the results, overall 9.77% of the respondents stated that they experienced the challenge of ineffective or obsolete tools as a technological challenge. Financial challenges and process complexity at 9.77% and 8.27% respectively. Lack of formal processes, poor priorities and undefined strategies each scored 6.77%. The least experienced challenge according to the respondents were undefined investment process, staff turnover and reassignment each with 0.75%

d. Section Four: PMO Effectiveness

Figure 30: Assessment Criteria

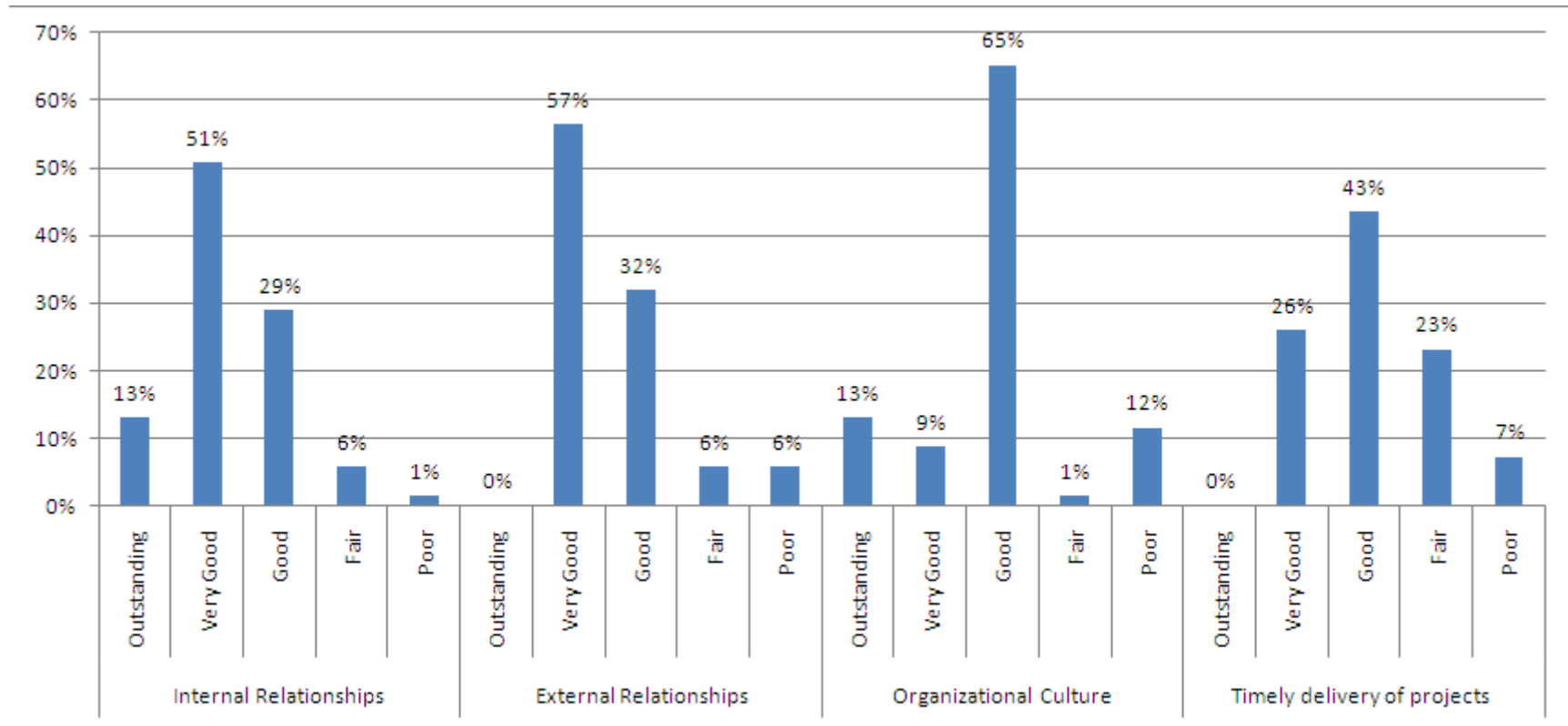


Figure 30 provides a summary of the assessment criteria for this section. Results indicate that in regards to internal relationships, majority of the respondents (51%) stated that they were very good and the least (1%) stating that internal relationships were poor. Regarding external relationships and their effect effectiveness, most respondents (57%) stated that external relationships were good. In terms of organizational culture, 65% stated that organizational culture was good, suggesting that the culture within the organisation promoted employee motivation to achieve the organisation's goals and objectives, and 6% stating that it was poor. 43% of the respondents stated that timely delivery was good, 26% said that it was very good and none of the respondents thought that it was exemplary.

e. Section Five: Relations

Figure 31 demonstrates the relationship between staff size and the number of PMO constituents. It is evident that PMOs with a staff size of 7-9 also had a medium number of constituents. The same trend occurs in PMOs with staffs of less than four or 10-12, which establishes a link between staff size and constituent's size.

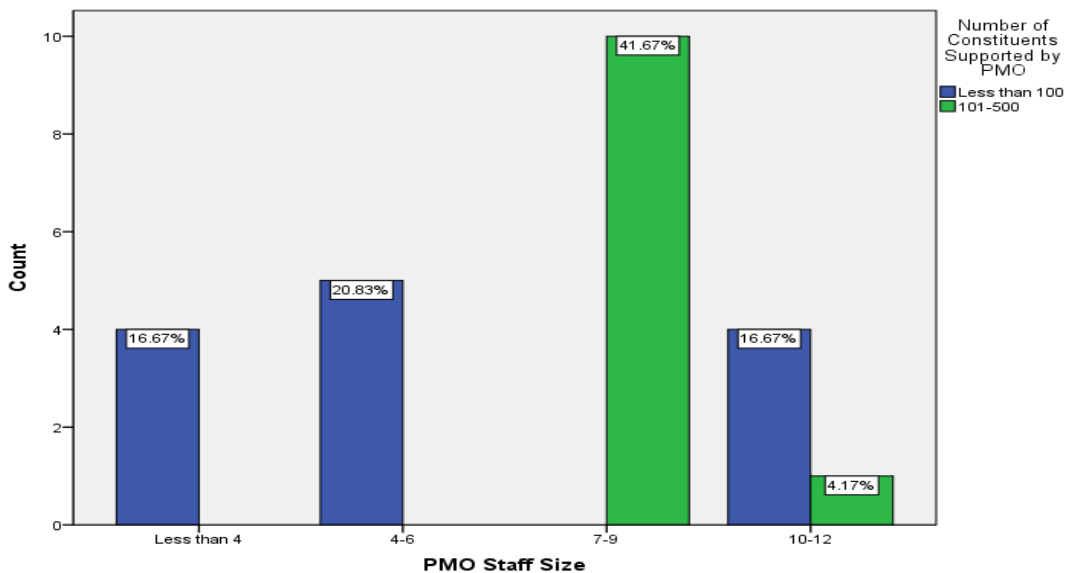


Figure 31: PMO Staff Size and Number of PMO Constituents

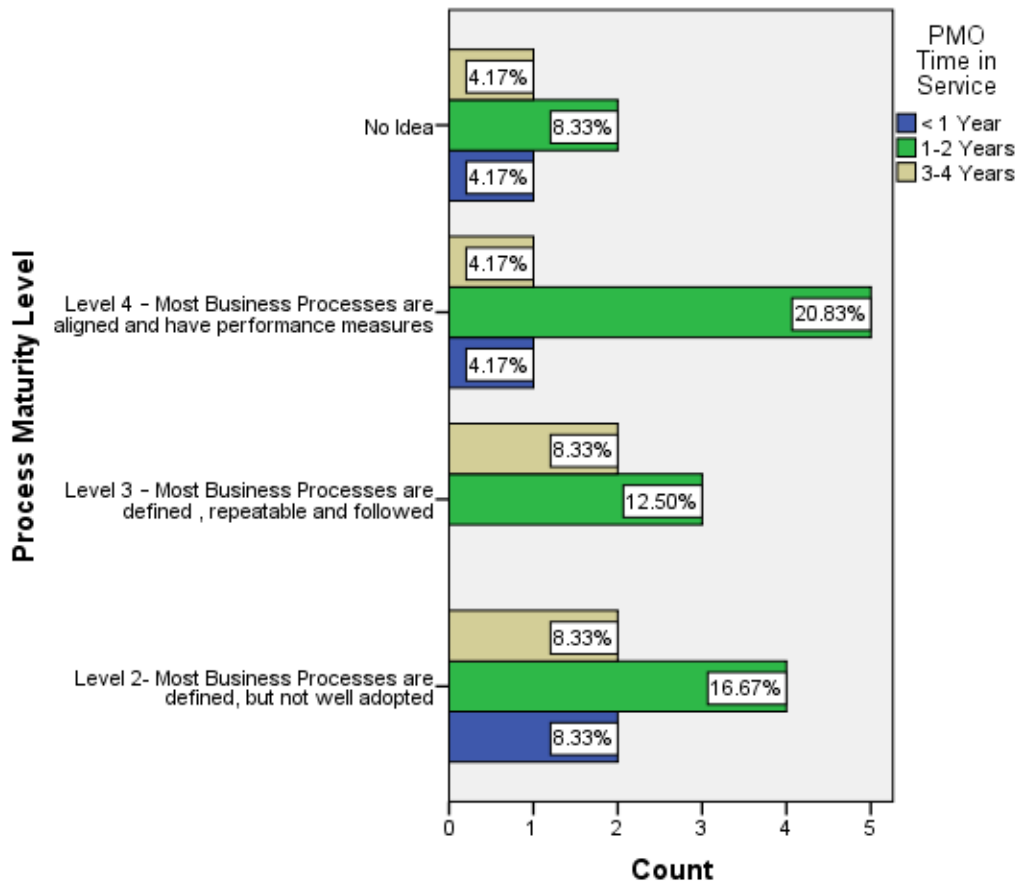


Figure 32: Process Maturity Level and PMO Time in service

Figure 32 shows the PMO has been successful in maturing over time through successful development of PMO processes that includes well defined processes which are repeatable and followed.

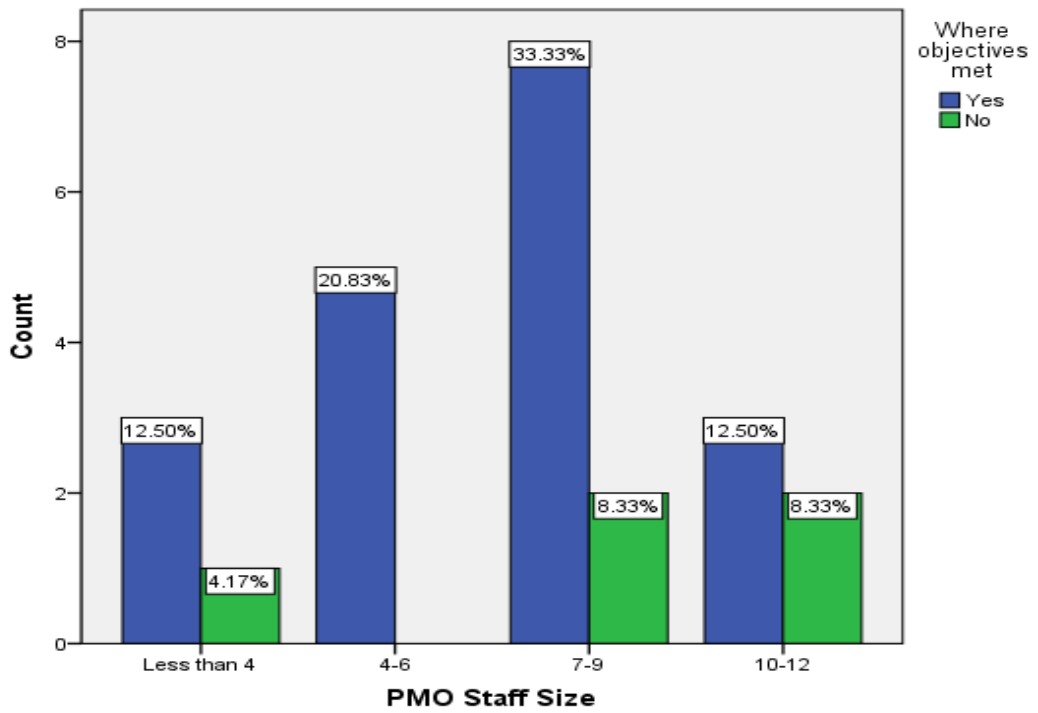


Figure 33:PMO Staff and PMO Objectives

Figure 33 demonstrates the link between PMO staff and PMO objectives. The graph indicates that a medium sized PMO was better positioned to meet its objectives.

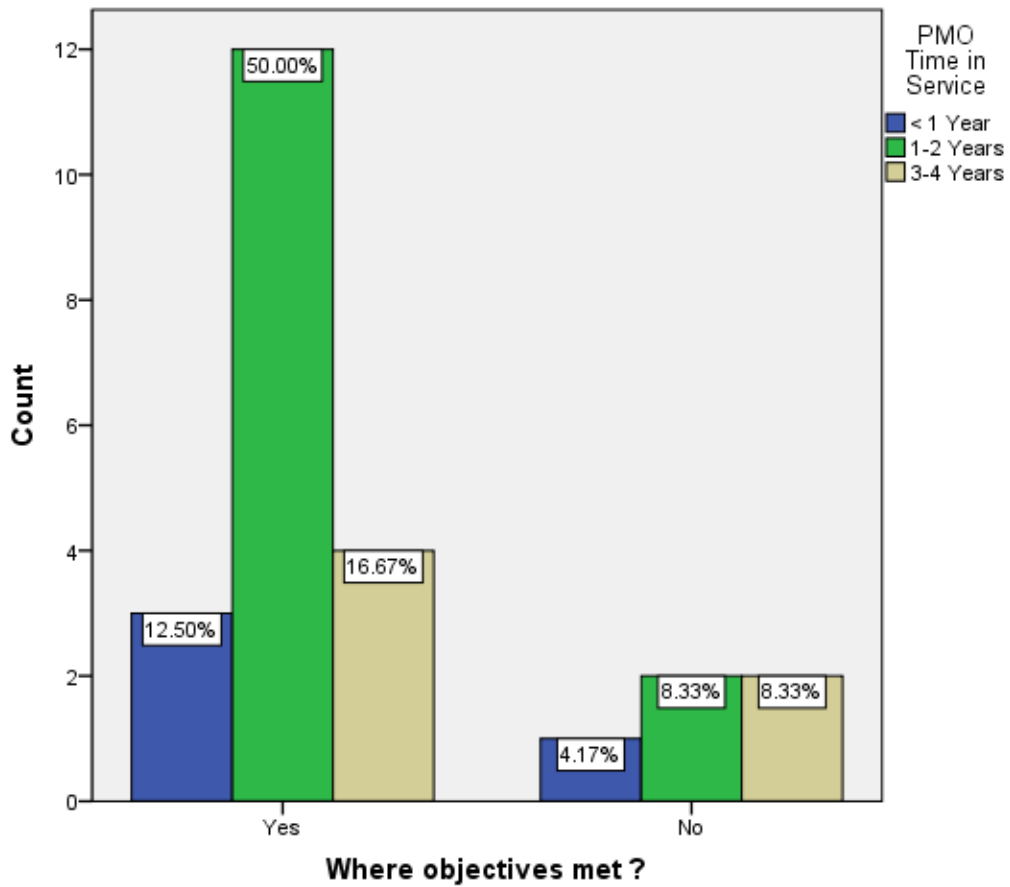


Figure 34: Time in service by PMO Objectives

Figure 34 indicates the correlation between time in service and the ability of the PMO to meet its objectives. The graph indicates that time in service was positively correlated to the extent to which the PMO was able to meet its objectives. As such, PMOs that had more years in service also tended to demonstrate more effectiveness, with better and sufficient structures and processes in place.

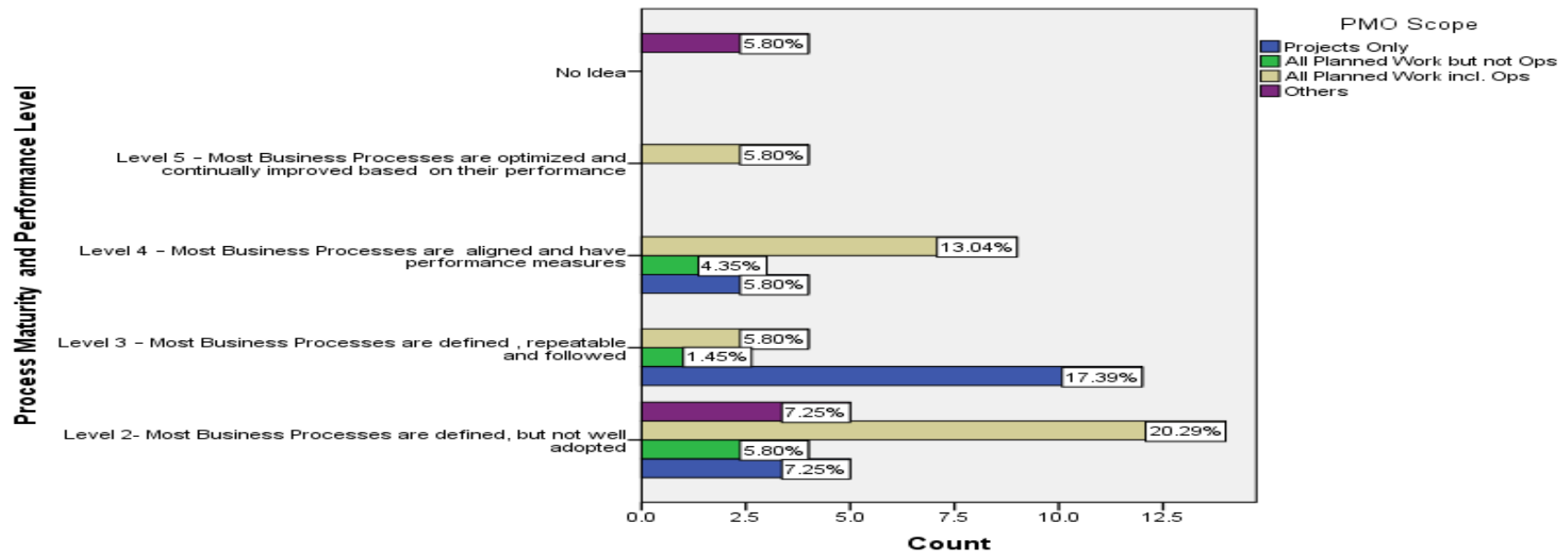


Figure 35: Process Maturity Level and PMO Scope

Figure 35 presents the correlation between maturity level and PMO scope. The figure indicates a strong correlation between PMO scope and PMO maturity level. As such, PMOs that characteristically had more scope were also more mature than those with lesser scope and lower maturity level. This indicates that as PMOs mature, their scope also tended to wide.

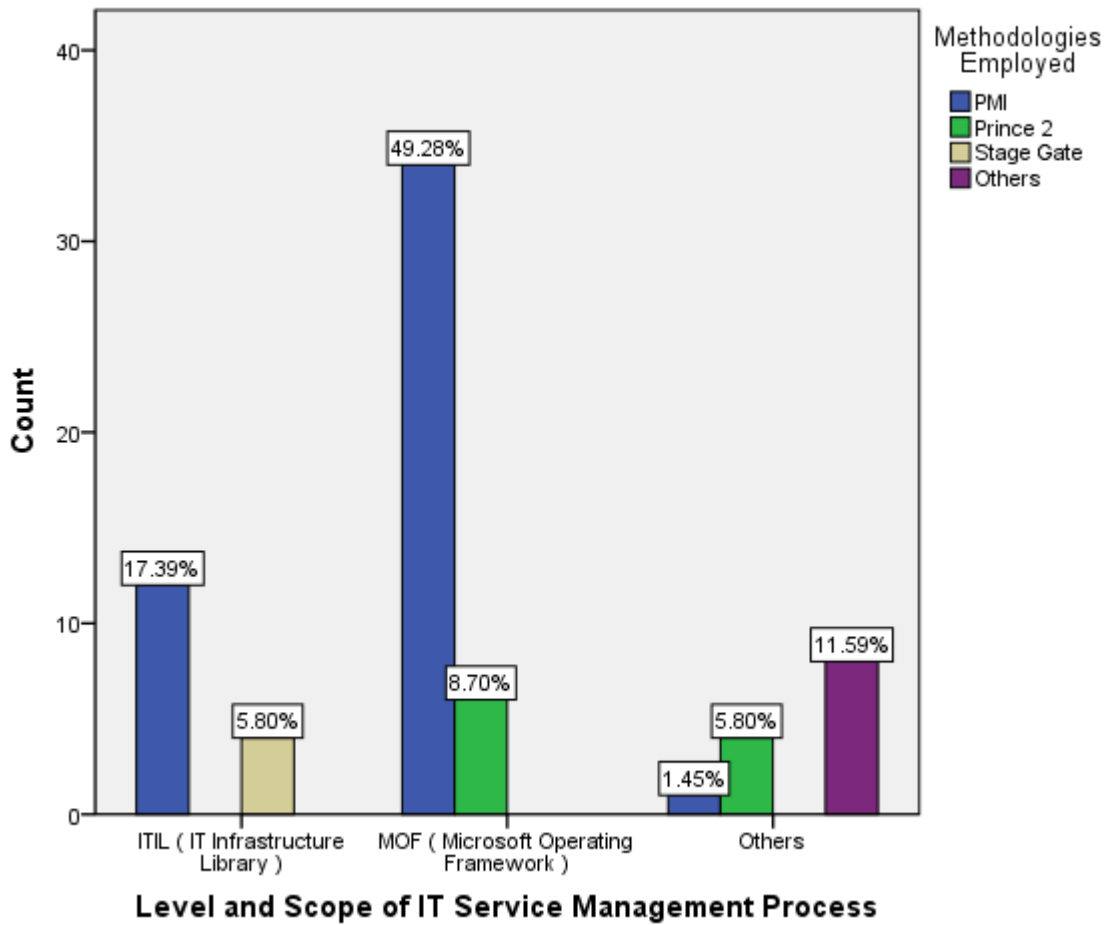


Figure 36:IT Service Management and Methodologies Employed

Figure 36 presents the correlation between service management and methodologies employed. Findings indicate that PMOs that used PMI and Microsoft operating framework had a higher count of service management than other methodologies using other IT frameworks.

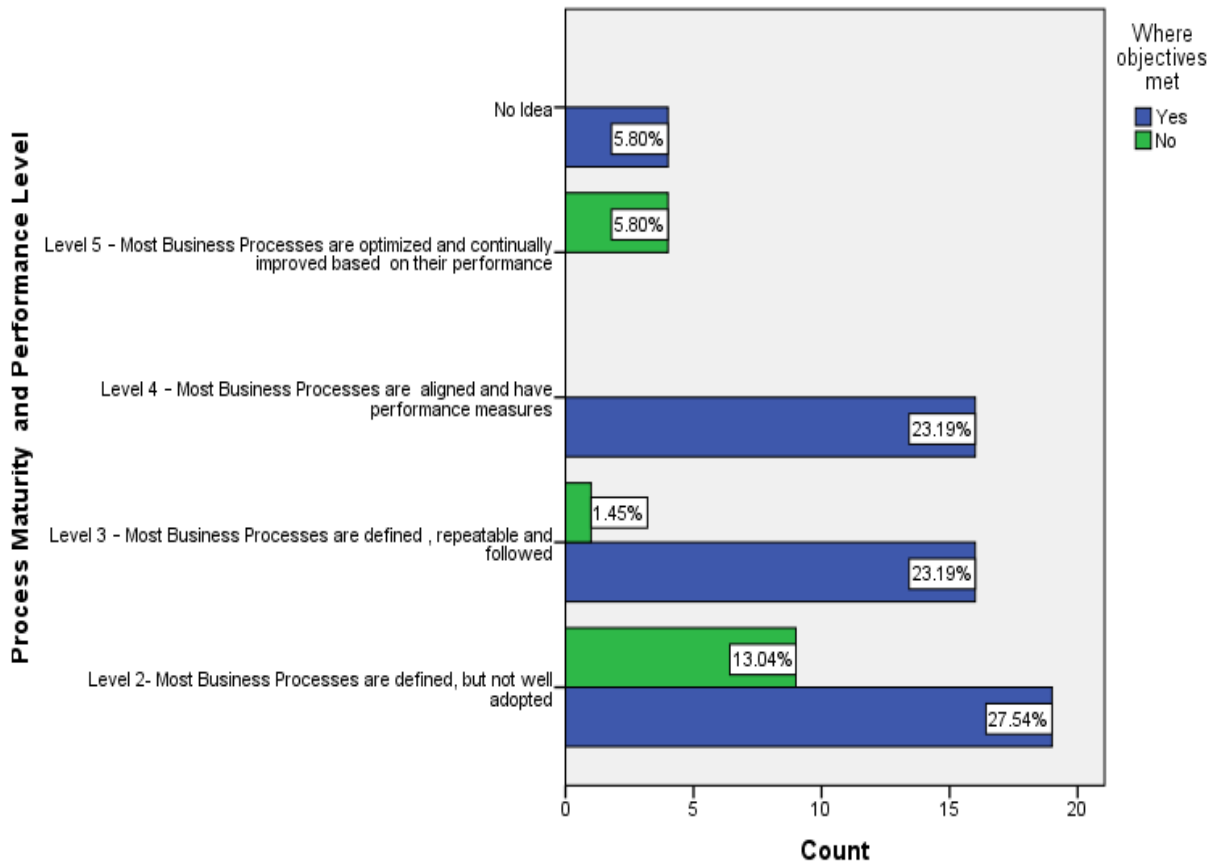


Figure 37: Process Maturity Level and PMO Objectives

Figure 37 demonstrates the correlation between Maturity level and PMO objectives. The findings indicate that PMO maturity level does not necessarily affect the ability of a PMO to reach its objectives. This is indicated by the fact that PMOs at level two had a higher score in meeting objectives that PMOs which were at a higher maturity level.

Figure 38: Operational Challenges Segregated by Process Maturity Level

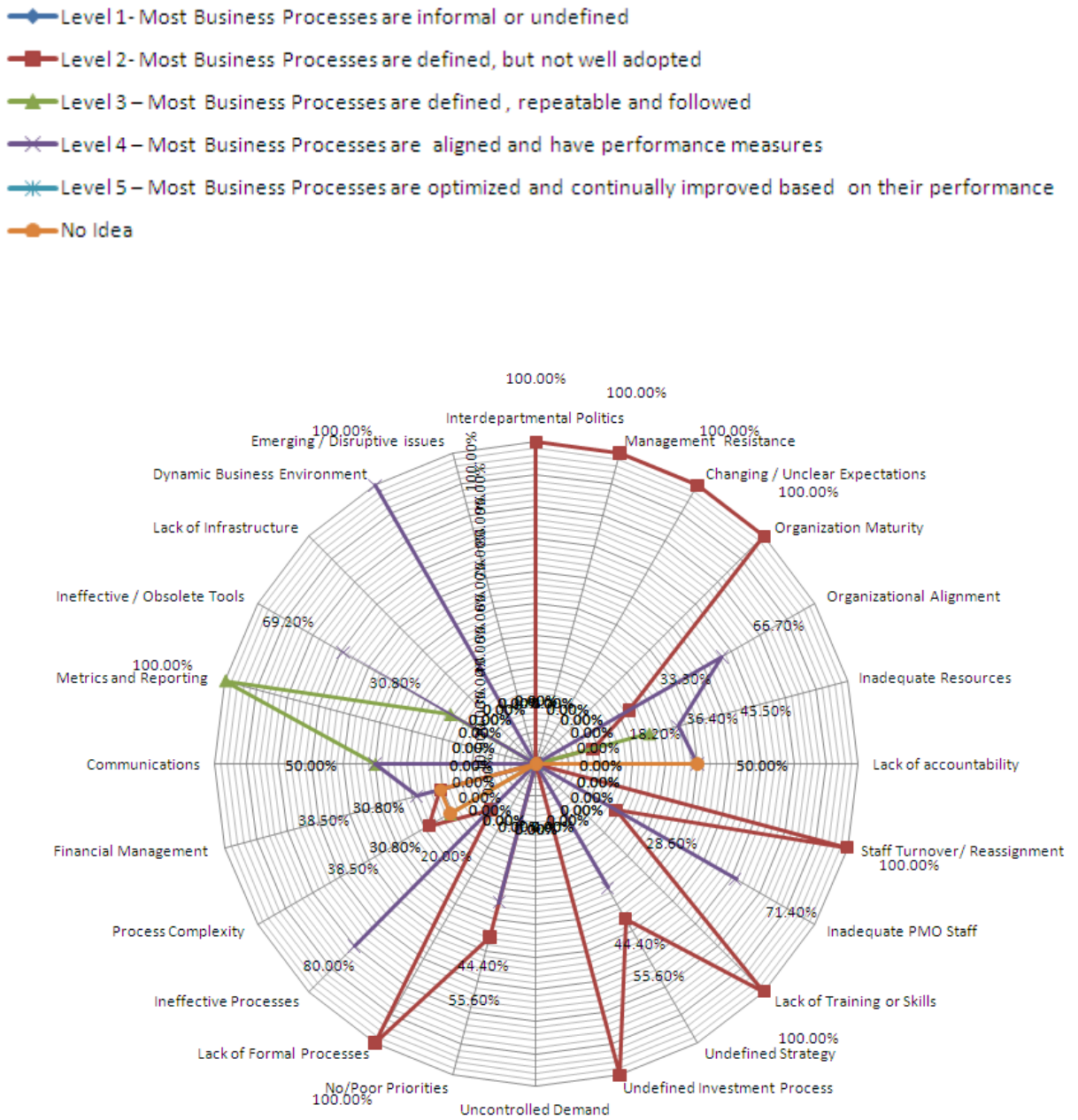


Figure 38 demonstrates the correlation between PMO maturity level and process challenges. PMOs at level two were challenged by poor priorities, undefined investment processes, staff turnover, lack of formal processes among others. The finding indicate that PMO maturity level was correlated to PMO process challenges.

Figure 39: Process Maturity Level and Organizational Challenges

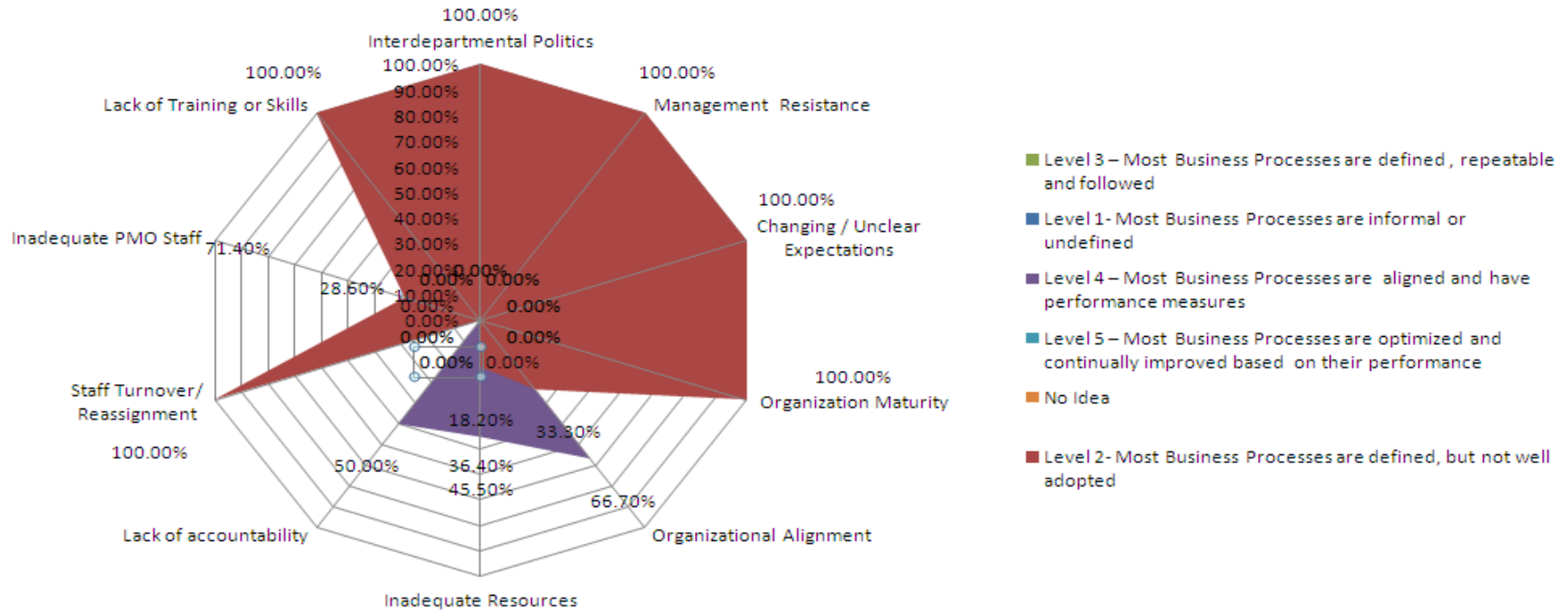


Figure 39 demonstrates correlation between process maturity level and organizational challenges. The findings suggest that PMO maturity level was correlated with organizational challenges. PMOs at level two experienced more challenges compared to those at a more advanced stage.

Figure 40: Process Maturity Level and Process Challenges

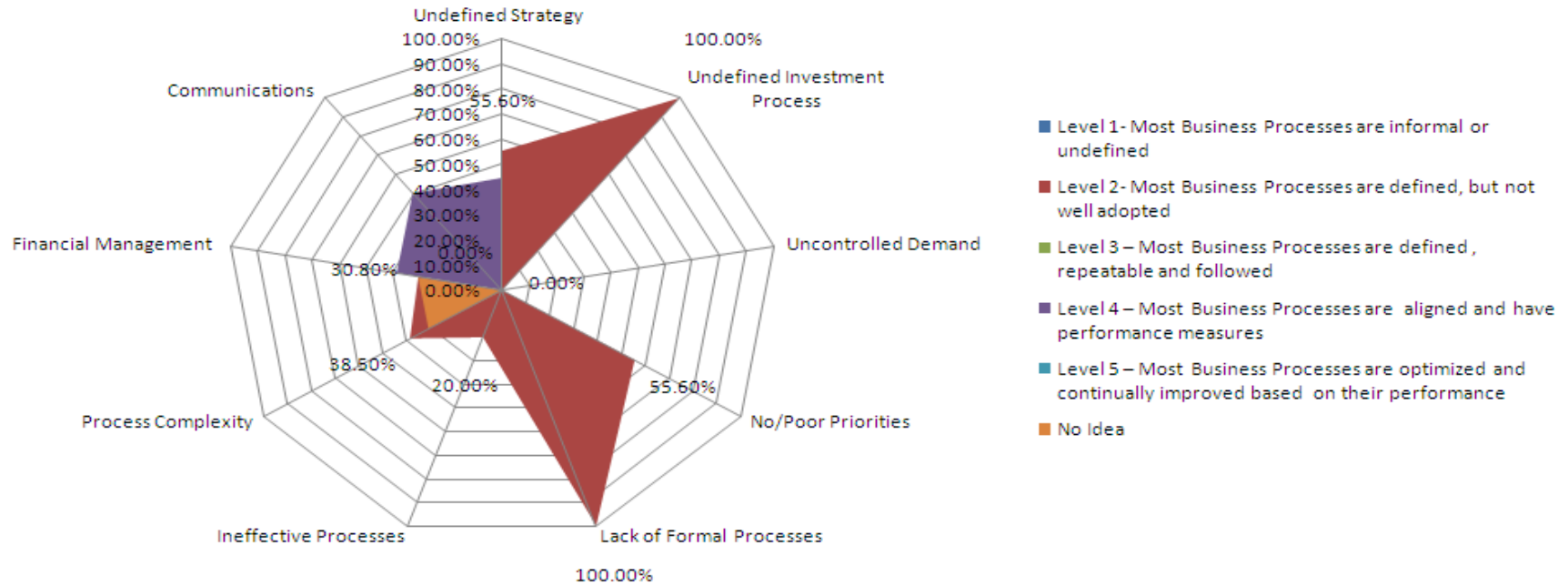


Figure 40 demonstrates the correlation between PMO maturity level and process challenges. From the findings, PMOs a lower maturity level experienced more challenges compared to those at the advanced stages. Such challenges include undefined investment process, uncontrolled demand, lack of formal processes and at the least, process complexity.

Figure 41: Process Maturity Level and Technology Challenges

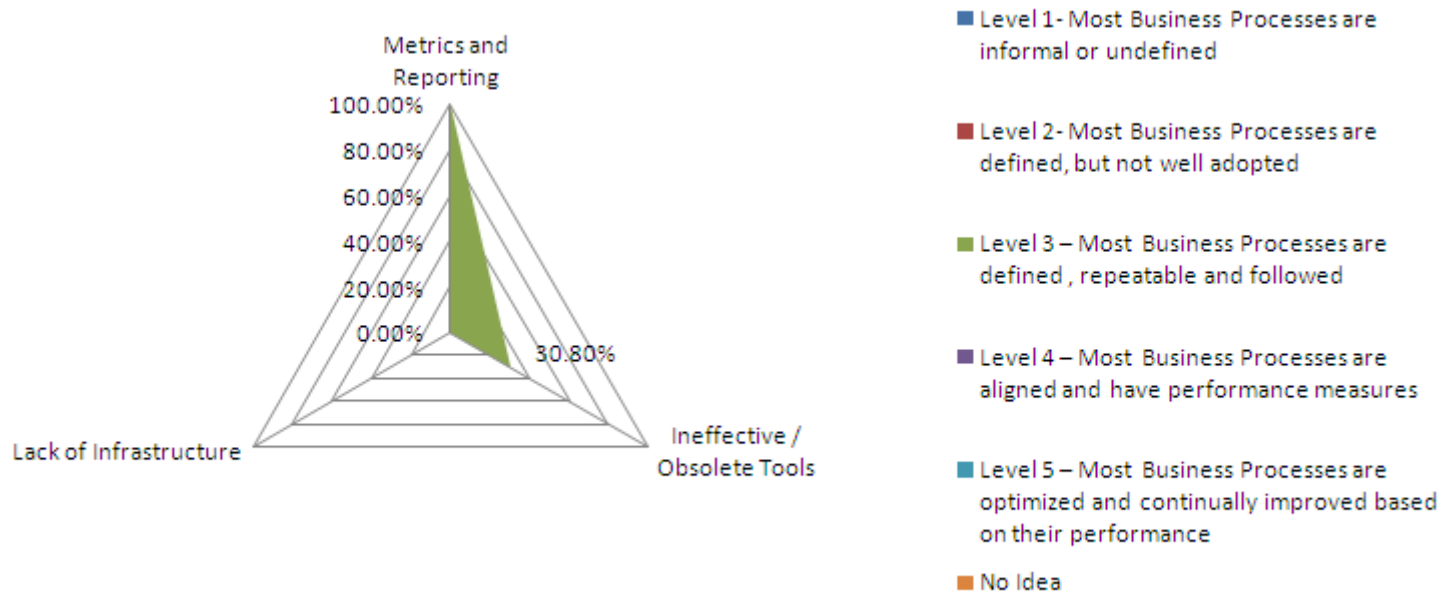


Figure 41 presents the correlation between process maturity and technology challenges. The figure demonstrates a correlation between PMO maturity level and technological challenges.

Figure 42: Process Maturity Level and Situational Challenges



Figure 42 provides the correlation between process maturity and situational challenges. Majority of respondents observed that the greatest situational challenge was the dynamic business environment, a factor that was not correlated to process maturity level.

f. **Section Six: Recommendations**

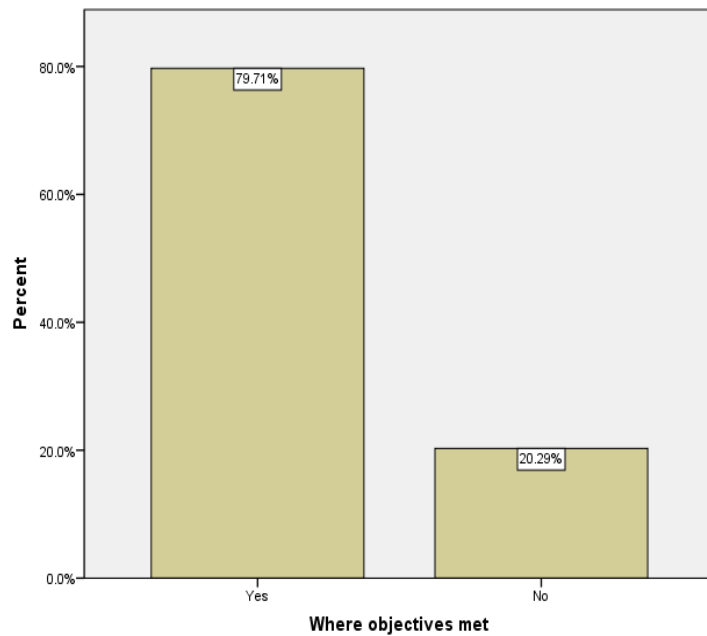


Figure 43: Were objectives met?

Figure 48 indicates the degree to which study participants believed that the objectives of the PMO had been met. About 80% believed that their PMOs had met the objectives while 20.29 believed that objectives had not been met.

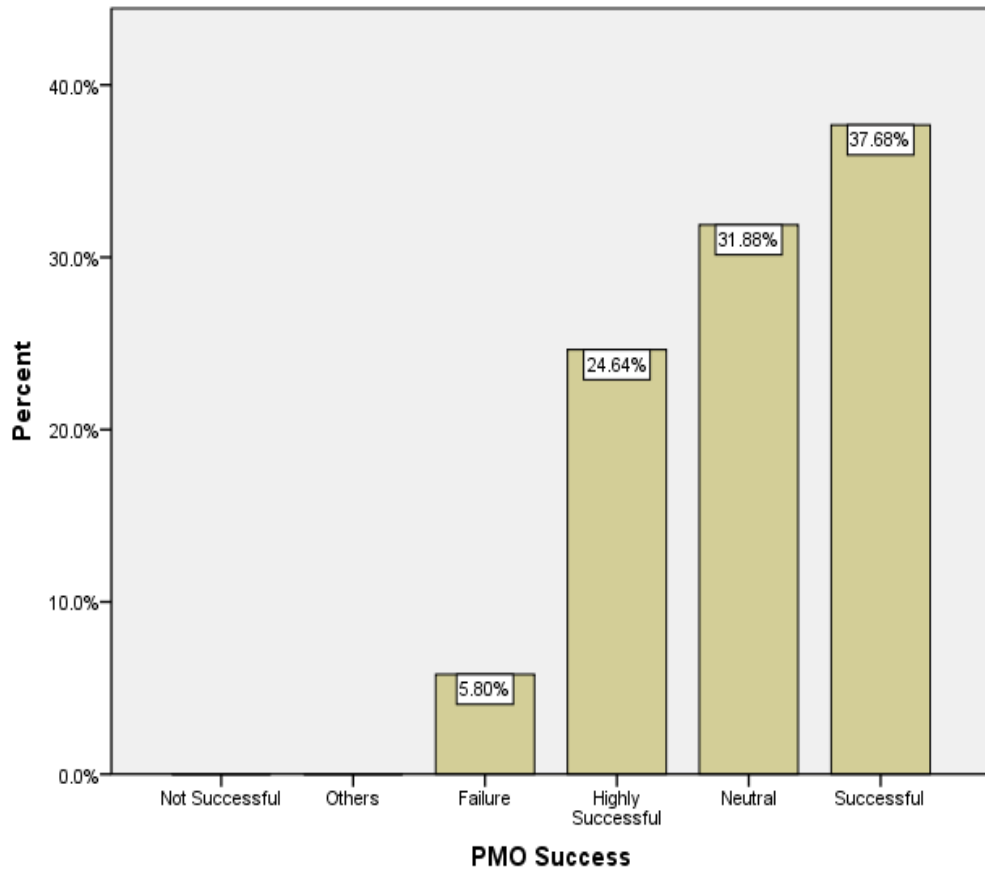


Figure 44: PMO Success?

This demonstrates the extent to which participants perceived that their PMOs had been successful/

Figure 45:Planned 2011 PMO Initiative

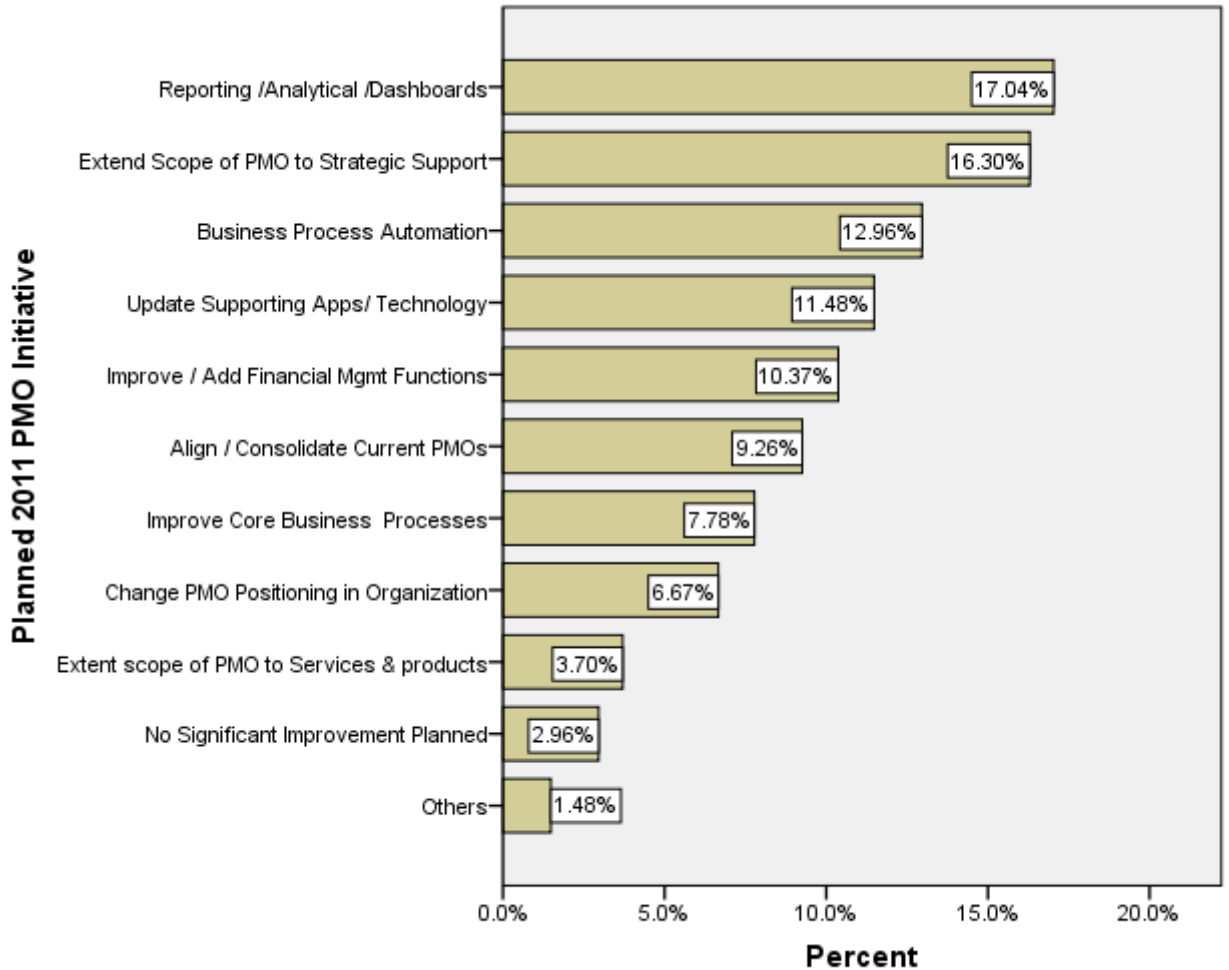


Figure 45 shows the planned 2011 PMO initiative as indicated by study participants. The following strategies are projected to strengthen the PMO against arising challenges, as well as making it more effective. Majority of respondents (17%) stated that they planned to improve on analytical reporting while 16,30% said extending PMO scope and strategic support was underway. Other plans include updating technology, improving financial management, aligning current PMOs and changing PMO positioning within the organization.

II. Qualitative Analysis

a. Case Study One: Organization A

Organization A is tasked with making proposals for economic and commercial policies for the Emirate and to optimize human resource utilization and capabilities. The organization is also tasked with identifying activities and service areas that could be used to make the country a distinguished centre at local, regional and global levels. The organizational structure of the PMO is portfolio PMO (PtPMO), which was established through international consultants and was established as a new organizational unit. The span of the PMO extends to Engineering department and involves major projects. The PMO is charged with coordination between projects and implementing a project information system. A staff of 12 and 101-500 constituents serve the enterprise PMO. Business processes are defined with the all planned work but no operations. The PMO uses Prince 2 methodologies.

Major Challenges

Organizational challenges include interdepartmental politics, lack of accountability and organization maturity and alignment as well as inadequate PMO staff. Process challenges include undefined strategies, poor priorities and ineffective processes. Technology challenges include metrics and reporting as well as ineffective or obsolete tools. Major situational challenges include dynamic business environment. The project manager feels that the PMO has not been able to meet its objectives and overall success is not adequate.

b. Case Study Two: Organization B

Organization “B” is a wholly owned subsidiary of the “X” government. The key role of Organization “B” is to act as a guarantor of the security of supply of electricity and water to consumers in the Emirate of “X”. The PMO is referred to as a Project PMO (PPMO) headed by a director manager. The PMO was established using internal resources and has a total of 100 employees. The PMO spans the engineering department and is concerned with major projects only. It is tasked with reporting to upper management of present status of projects as well as monitoring and controlling project performance. The respondent observed that the PMO was at level four and used the PMI methodology.

Major Challenges

The respondent stated that there were no observed operational, or organizational challenges and believed that the objectives had been realized. Overall, the PMO was perceived as highly successful.

c. Case Study Three: Organization C

The main role of Organization “C” is to Drive economic policymaking, advocacy and regulatory reform as well as create a positive regulatory environment for conducting business And Maintain high standards of living and quality of life for Dubai nationals and residents. The individual in charge is Mr Sultan Saeed who is the Director manager of the Portfolio PMO (PtPMO). The organization has more than 10,000 employees and was established through international consultation as a new organizational unit AND implement a PM system or methodology. Its scope extends to Enterprise, line of business and business unit and deals with major projects only. Among the functions of the PMO include reporting project status to upper management, developing and implementing a standard methodology, monitoring and controlling project performance as well as providing advice to upper management. There is a

nine member staff supporting 101-500 constituents. The respondent perceives The PMO to be at level three, and scope extends to projects only. Methodology used is Prince2.

Major Challenges

Significant organizational challenges faced by the PMO include interdepartmental politics, management resistance and staff turnover. Others include inadequate staff, lack of training and skills as well as unclear expectations. Process challenges included uncontrolled demand, ineffective processes, process complexity, and communications. Technology challenges included metrics and reporting. Overall, the PMO was perceived as having met its objectives and being highly successful.

d. Case Study Four: Organization D

Organization “D” is committed to supporting the government’s vision by becoming a leading water and electricity distribution and supply company, comparable with the best in the world. Organization “D” will improve the quality and efficiency of its operations and customer service delivery. The person in charge is Ms. Maryam, Mohammed and is referred to as the Director manager. The structure is a portfolio PMO (PtPMO). A total of 1001-5000 employees work in the organization. The PMO was established through international consultation as a new organizational unit. The scope extends to line of business and responsibilities include all planned work and resources including operations. The PMO with a staff of 12, and supported by less than 100 constituents, is tasked with reporting to upper management as well as coordination between projects, developing and maintaining a project scoreboard, control and monitoring of projects among other general PMO responsibilities. Time in service is 1-2 years and the PMO is referred to as a project management office. The respondent observed that the PMO is at level two and used the PMI methodology.

Major Challenges

Among organizational challenges included Management Resistance, Changing / Unclear Expectations, Organization Maturity, Organizational Alignment, Inadequate Resources, Lack of accountability, Inadequate PMO Staff, Lack of Training or Skills. Process challenges include ineffective processes, communications, uncontrolled demand, and poor priorities, process complexity, financial mismanagement among others. Technology challenges include metrics reporting and ineffective of obsolete tools. Situational challenges included disruptive issues and a dynamic business environment. According to the respondent, the PMO had not met its objectives and perception of success was neutral.

e. Case Study Five: Organization E

Organization “E” was established in 1962 with the main task of providing comprehensive services to the public and ensures proper planning of the developing city, with regularized road networks, maintenance services, sewerage, lighting works, launching the Agriculture Development Plan in the Emirate and establishing public markets in various areas. Mr Saleh, the director manager is in charge of the Program PMO (PgPMO) which was established through international consultation. The PMO scope is line of business unit and responsibilities include all planned work and resources but not operations. Functions of the PMO include reporting project status, developing and implementing a standard methodology, monitoring and controlling project performance among other general PMO responsibilities. The PMO has been in service for 1-2 years and the head is referred to as the strategic planning an performance management director, who perceives the PMO to be at level two. The PMO scope extends to all strategic initiatives and projects with contracts.

Major Challenges

Identified organizational challenges include interdepartmental politics, unclear expectations, organization maturity, alignment and inadequate PMO staff among others. Process challenges included uncontrolled demand, lack of formal processes, poor priorities, process complexity, communications and financial constraints. Technology challenges include metrics reporting and obsolete tools, while situational challenges included dynamic business processes. Overall, the respondent believed that the objectives had been realized but was sceptical about the success of the PMO.

f. Case Study Six: Organization F

Organization “F” has been established in 2003, it is responsible for the management of every aspect of information technology industries in the UAE. The organizational objectives include: ensuring adequacy of Information Technology industry services throughout the UAE; achieving enhancement of services, both in terms of quality and variety; encouraging IT services within the UAE; promoting new technologies; ensuring that the UAE becomes the regional ICT hub; developing the country’s human capital; and encouraging research and development. Mr. Ahmed the director manager is in charge of the enterprise project management PMO (EPMO). There are less than 100 employees in the program, which was established through internal resources. The span includes all departments but focuses on major projects only. Its functions include developing personnel competency, implementation project information system among other PMO responsibilities. The program as a about 7-9 employees and has been in service for three years.

Major Challenges

The respondent cited organization maturity as a significant challenge encountered by the PMO as well as management resistance, unclear expectations, inadequate resources and lack of training skills and accountability. Process challenges experienced were undefined strategies, communication, uncontrolled demand, ineffective processes, financial mismanagement, process complexity among others. Technology challenges included metrics reporting while there were no situational challenges. Overall, the PMO was perceived as being able to realize its objectives and was successful.

Statistical Analysis

Overall, the statistical analysis conducted has provided sufficient insight into the study's research question "What will be the potential challenges in government organizations that try to establish a PMO for first time?" The statistical analysis therefore highlighted the challenges faced by PMO levels at various stages of operation. The statistical analysis is particularly useful as it reliable evidence on the types of challenges that PMOs are likely to experience.

III. Data Analysis & Results Limitation

The following are some of the limitations and challenges experienced in conducting the data analysing and results.

- 1- The interviews were conducted in Arabic , as this is the official language in the government sectors and it took a long time to translate the case studies into English
- 2- Using SPSS software was a challenge, more skills had to be acquired through training, and more help was acquired from Dubai Statics Centre to perform the coding process.
- 3- The questionnaire was designed for two categories Directors and other PMO Staff. However, after conducting the study, it was established that it would have been more efficient to use one questionnaire, as it would have eased the analysis process. Two different questionnaires were used for this study, one for the PMO staff and one for the PMO directors. The main difference was that the questionnaire for PMO directors had an extra section namely demographics. However, in terms of data analysis and interpretation, it would have been much more effective to use only one set of questionnaire for data collection
- 4- Since the questionnaire, was in English, some of the organizations could not fill it as they requested it to be in Arabic. The translation time from English to Arabic proved to be time consuming.
- 5- In future, it would be more effective to use only one separate link for each government organization , as it will be easier for to get accurate answers from the directors and the PMO staff

6- An error was made in adding the following options in this question “ Dont Have a PMO “ and “ PMO in Development” as most of the organizations that were approached had a PMO.

PMO Time in Service

- a. < 1 Year
- b. 1-2 Years
- c. 3-4 Years
- d. 5 Years or more
- e. Don't Have PMO
- f. PMO in Development

The three organization, that selected this option, the response had to be changed to “OTHERS“ as it the previous option was not fully focused on the questions.

PMO Time in Service

- a. < 1 Year
- b. 1-2 Years
- c. 3-4 Years
- d. 5 Years or more
- e. Others

7- The “Self Assessed PMO of Respondents” question in PMO Effectiveness section as it is mentioned below was deleted and only the “Assessment Criteria” question was retained as it covers the deleted question.

- Self Assessed PMO of Respondents
 - a. Outstanding
 - b. Very Good
 - c. Good
 - d. Fair
 - e. Poor

- Assessment Criteria
 - a. Internal Relationships
 - b. External Relationships
 - c. Organizational Culture
 - d. Timely delivery of projects

However, in conducting the correlation between the below questions, a problem was encountered since the PMO effectiveness field had been deleted. However another question was used as an alternative “ Were objectives met?” in order to reach to the same conclusion :-

- Director Survey : Co- Relation between “Reported Process Maturity Level” and “PMO Effectiveness”
- Staff Survey : Co- Relation between “PMO Staff Size” and “PMO Effectiveness”
- Staff Survey : Co- Relation between “PMO Time in Service” and “PMO Effectiveness”

CHAPTER 5 :

DISCUSSION

“Far better an approximate answer to the right question, which is often vague, than an exact answer to the wrong question, which can always be made precise.”

John Tukey.

I. Major Findings

This chapter integrates the findings from both quantitative study and qualitative questionnaires in order to establish whether they prove or disprove the research hypotheses. This section will explore each section of the interviews and questionnaires to establish whether the results are similar or differ in any statistically significant way.

a. Section One: Demographics

- Responses by Role

Majority of the respondents to the questionnaire were PMO staff, followed by PMO directors. Respondents to the interview were predominantly PMO heads or directors who provided insight to the effectiveness of their PMOs and whether or not they were able to meet their objectives. Based on the findings, it is notable that PMO staff generally perceived their PMOs positively as they were more likely than to respond that the PMOs had been successful in comparison to the PMO directors.

- PMO Organization and Structure

For both PMO staff and PMO directors who participated in the study, more than 50% of the respondents stated that they had multiple PMOs. This is in accordance with the observation made by Larson (2004), who noted that most organizations are increasingly adopting PMOs as managerial strategy in contemporary organisational contexts. This is true to the nature of PMOs, which are commonly

tasked with coordination between projects within an organization. As Benko and McFarland (2003) noted, the need for PMOs in contemporary organization is driven by the rise in complex projects within the organization. The authors further note that the need for PMOs is also created by the current trend by organization to engage in multiple projects in order to meet their objectives much faster. The most popular structure of PMO according to both questionnaire and interview respondents was Portfolio PMO (PtfPMO) followed by Project PMO (PPMO).

- **Scope and Span of PMO**

From the findings, majority of respondents believed their PMOs to be at the all planned out stage while a sizeable number perceived theirs to be at the project level stage. According to Garcia (2008), the all planned out stage is at level 2, where the PMO has well defined organisational structure and staffing requirements, an identified PMO methodology, well established goals and objectives as well as process for reviewing performance metrics. The level is also characterized by roles and responsibilities, identified PMO process domains, defined lifecycle as well as cogent training requirements. For the PMOs that were still at the project planning level, they were still planning project initiation, identifying their mission and vision as well as goals and objectives.

- **PMO Line of Reporting, Naming, Staffing and Tenure**

For both interviewees and questionnaire respondents, the main PMO line of reporting was to the CEO.

a. Section Two: Process Maturity and Performance Level

- **Self Assessed Process Maturity**

For both the interviewees and questionnaire respondents the most frequently reported PMO level of maturity was level two. Most business processes being well defined but not well adopted characterize this level. Garcia (2008) also noted that PMOs a level two were characterized by a well-defined project management methodology framework, established goals and objectives as well as a framework for implementing an IT framework. This finding is important in understanding the correlation between various types of PMO challenges with its level of maturity.

- **Type of Processes Being Employed**

The most common process being employed by majority of the PMOs was PMI. This factor is also important since the method chosen may affect the extent to which a PMO is able to realize its objectives, or its ability to effectively deal with challenges. According to Project Arena (2003), the PMI methodology has three distinct processes that are portfolio management, program management and PMI. The author also notes that PMO methodology is directly linked to its scope, time, costs and resources utilization, which in turn affects its effectiveness.

b. Section Three: PMO Operational Challenges

- **Organizational Challenges**

The most reported organisational challenge was inadequate resources, followed by lack of accountability, inadequate PMO staff, organizational alignment, changing/ unclear expectations, interdepartmental politics, staff turnover, organization maturity, management resistance and lack of training or skills in that order. However, the most significant organizational challenge as reported by the PMO directors was interdepartmental politics. This is perhaps because in their leadership positions and implementations of changes, they were more likely to encounter resistance and sabotage from other heads who would be affected by such changes. Hobbs, Aubury and Thuiller (2008) also concur with this findings as

they state that organizational changes usually occur in a context that is politically charged especially because such changes are driven by political factors.

Management resistance was also a key organisational challenge, which is closely linked to interdepartmental politics. Pellegrinelli and Garagna (2008) observed that PMOs generally reduce the autonomy of project managers, making them more likely to resist the implementation of a PMO. In terms of organizational alignment, Shehu and Akintoye (2009) noted that without adequate alignment of organizational goals, a PMO is unlikely to achieve effective planning and implementation of projects. As such, both organisational and PMO goals and objectives should be suitably aligned in order to maximize benefits. From the findings of this study, participating PMOs reported a distinct lack of organisational alignment, which created endless conflicts that affected PMO effectiveness.

Inadequate resources was also found to be a major organisational challenge. According to Stanleigh (2005), PMO strategies cannot be implemented without sufficient resources. Such resources include both human and financial as well as other factors that are central to the running of successful projects. Notably, inadequate resources are also likely to be created by poor strategies, while a shortage of staff can arise from staff turnover and reassignments (Aubury, Hobbs and Thuiller, 2007). Lack of training and key skills among PMO staff was also reported as a major challenge that impedes PMO effectiveness, with while most members of lower level PMOs require training.

From the findings of the study, unclear, and changing expectations was reported as a significant challenge in PMO effectiveness. Crawford (2002) observed that unclear goals and objectives will lead to many revisions and restructuring, which subsequently create conflicting strategies, goals and objectives. Moreover, unclear expectations are also linked to staff reassignments, change of roles and responsibilities, which consequently lead to delayed implementation and conflicting PMO agendas.

- **Process Challenges**

The most commonly reported challenge according to the questionnaire was financial mismanagement, followed by process complexity, lack of formal processes, poor priorities, undefined strategy, communications, ineffective processes, undefined investment process and uncontrolled demand. Notably process complexity was reported more for PMOs in with the lowest organizational maturity according to the interviewees. This establishes a correlation between maturity level and the ability alignment of processes in a manner that would meet the objectives. Aubury (2007) also noted that process complexity was among the most significant challenges facing PMOs, which is also linked to lack of strategy alignment, poor strategies that are not in line with organizational priorities as well as lack of formal processes associated with immature PMOs (Aubury & Thuiller 2008). According to Misner, (2008), undefined strategies, which often lead to conflicting objectives greatly hinder PMO effectiveness. The author further noted that PMOs, that have clearly defined strategies have a 20% increased chance of realizing objectives compared to those without defined strategies. Moreover, defined strategy is closely linked to effective allocation and utilization or organizational resources. With a clear strategy, it is also easy to monitor resource utilization, enhance monitoring and evaluation, which ultimately leads to reduction of financial mismanagement (Shehu & Akintoye, 2010).

Another significant challenge from the study findings is that of process complexity. Hobbs and Aubury (2007) noted that this problem is linked to the use of inappropriate and ineffective processes as well to suitable challenges which are made complex during the process of implementation. Process complexity also impedes resource allocation and utilization due to the many unrelated processes. Communication was also reported as being a significant impediment since the ability of PMO to effectively implement strategies is based on the ability of PMO stakeholders to communicate these strategies and objectives (Hawald, 2009).

- **Technology Challenges**

The most commonly reported technological challenge for both interviewees and questionnaire respondents was metrics reporting. However, PMO heads reported both ineffective/obsolete tools and metrics reporting as major technological challenges. These suggest that PMOs was affected by the absence of latest technologies and lack of adequate skills to operate available technologies. This was true even for PMOs that were at a more advanced stage of maturity. The technology inefficiencies are also linked to PMO effectiveness Jamieson (2008) noted that ineffective utilization of technology affects PMO effectiveness. Utilization of technology improved efficiency as well as enhancing the implementation of PMO strategies and goals.

- **Situational Challenges**

Both PMO heads and questionnaire respondents indicated that the greatest situational challenge was dynamic business environments. This is primarily because of the volatility of the contemporary business environment. These not only affect the affects PMO effectiveness, but may reduce available PMO resources, cause a revision of objectives or change of strategy for goal achievements as well as influence organizational priorities and resource allocations for PMOs. This is also asserted by Mihailidis, Miletich and Khreich (nd) who noted that PMO structure, maturity level, and strategy alignment affects its ability to respond to the volatile business environment, which subsequently affects its effectiveness. Another situational challenge impeding PMO effectiveness is emerging and disruptive issues which are likely to occur within the volatile PMO context. Thiry and Dequire (2007) recommended flexibility as a way of handling disruptive issues and flexibility enhances a PMO's ability to respond to volatile issues.

c. Section Four: PMO Effectiveness

More than half of interviewees perceived their PMOs as being successful, which reflects with the opinions of PMO heads. Most of them observed that their PMOs had been successful. However, PMO effectiveness was observed to be linked with various other PMO factors such maturity level, scope, and types of challenges encountered. This is in a accordance with the observation made by Shehu and Akintoye (2008). Jamieson (2008) also noted that PMO effectiveness was also affected by technology, with PMOs that were able to effectively use technology demonstrating more efficiency. Challenges such as resource constraints, unclear goals and objectives among other factors also affected PMO effectiveness.

d. Section Five: Relations

From the findings of the questionnaire respondents and interviewees, the study has established relations between the variables of these study, which were, PMO maturity level, PMO challenges and PMO effectiveness. The following is an exposition of how these relations were establishing, thereby proving the research hypotheses.

Proposition 1 (HA): There is a relationship between PMO maturity level and PMO effectiveness

From the findings, it is observable that the level of maturity that the PMO was in, largely affected its effectiveness. Goal and process alignment have been observed as having a significant effect in the ability of the organization to realize its objectives. From the data, it is observable that PMOs that had more mature processes were more effective. From the interviewees, PMO directors who reported to heading level three or four PMOs stated that their PMOs had been effective. The interrelation between various PMO factors, especially those related to human issues affect PMO effectiveness. As Pole to Pole (2009) observe human labour is also related to experience, which is gained as the PMO matures. As such, lower level PMOs are also linked with ineffectiveness since there is a lack of experience in PMO matters.

Proposition 3 (HA): There is a relationship between PMO operational challenges and PMO effectiveness

The study also established that there is significant correlation between operational challenges and the extent to which PMOs were able to achieve their objectives. From the interviewees, respondents who reported more challenges were more likely to report neutral or outcomes that were not regarded as highly successful. Level two PMOs were particularly challenged by interdepartmental politics, which probably occurred to the frictions that new changes were likely to cause, and the uncertainty about their implications on individual positions. Management resistance and changing unclear expectations were also related to PMO maturity level and effectiveness as well as high staff turnover and lack of formal processes associated with the newness of the program. Resistance and politics are particularly related to PMO effectiveness, as PMOs require extensive collaboration between departments and projects for them to be able to achieve their goals (Pellegrinelli & Garagna, 2008).

Proposition 5 (HA): There is a relationship between PMO maturity level and PMO challenges.

This, according to the Project Management Institute (2008) is also connected to experience in resource allocation, utilization of resources, strategy alignment and implementation of the right processes and PMO methodologies that enable the PMO to either effectively handle the challenges, or avoid them altogether.

Maturity level of the PMO also impacted on the challenges that PMOs experienced. It was observed that more mature PMOs experienced lesser challenges in comparison to those with lower maturity. This is perhaps because through experience and trial and error process, more mature PMOs had identified the most effective approaches and eliminated those that were redundant. It is also possible that mature PMOs had developed measures of utilizing and allocating resources more effectively compared to less mature PMOs that had to contend with more incidences of changing priorities and poor processes.

Having proven the relations between the study's variables, the findings consequently identified a new variable as

Proposition 7 (HA): There is a relationship between PMO maturity level and PMO challenges and PMO Effectiveness

PMO maturity level was established as affecting its effectiveness and challenges that were experienced, while challenges were established to impact PMO effectiveness. As such the study proves that all three variables are interrelated, and that each one impacts the other two. In such a case, PMO effectiveness was largely dependent on PMO challenges. Which were in turn affected by the level of maturity of the PMO (Pellegrinelli & Garagna, 2008).

II. Discussion

The findings of this study concur with previous research, which establish that PMO effectiveness is linked to the level of maturity and PMO challenges. As such, level of maturity is proven to affect the PMOs resilience against challenges with more mature PMOs having more resilience against challenges compared to lesser-developed ones. As Aubury, Muller, Hobbs and Blomquist (2010) noted, the effectiveness of a PMO is affected by the absence of supportive structures, which are themselves determined by the level of maturity that the organization is at. Moreover, more mature PMOs have better defined goals and objectives, more aligned PMO processes as well as more efficient resource allocation and utilization. As Kimmons, (nd) noted, more mature PMOs have better organizational and managerial structures with the most mature PMOs being able to effectively coordinate projects, collect and analyze data, and ultimately achieve organizational goals. The present study particularly noted departmental politics and managerial resistance as a key challenge for PMOs, which affects their ultimate effectiveness. In the same case, most PMOs that were affected by this significant challenge were those in their initial stages therefore linking particular challenges with maturity level of a PMO. This observation is further supported by

Thiry and Dequire (2007) who observed that a PMOs effectiveness is compromised by the managers who sabotage its processes. Managers oppose new programs and strategies that they perceive as affecting their autonomy.

PMOs that are in their initial stages are not only affected by embedded challenges, but also by resistance and sabotage from managers. Pellegrielli and Garagna (2008) a new PMO heightens political tensions who resist the restructuring brought about by the creation of a new PMO. This is the reason why young PMOs experience more challenges and resistance compared to their older counterparts. Such obstacles are observed to affect the ability of the PMO to realize its goals. As such, from the study, maturity level is observed as being a denominator in PMO effectiveness and types of challenges encountered. As the PMO continues to mature, the findings observe that its general effectiveness subsequently improves. From another dimension, maturity level is perceived as not only being determined by the time in service, but also by its ability to deal with challenges effectively. As much as this factor was not measured by the current study, its implications are significant and need to be included in a future study.

Owing to the importance of maturity level to the other variables of effectiveness and challenges, it is necessary for organizations to not only strive to implement PMOs to harness their projects, but to also identify key strategies that will enhance PMO maturity level. PMOs should not only concern themselves with managing and allocating resources, but should also indentify strategic measures that would increase their maturity. Some of these strategies may include improvement of processes, which is correlated with ability to withstand challenges. The PMO can also enhance its maturity through ongoing assessment of the current status and making appropriate adjustments.

Alignment to PMO goals was also observed as a key PMO challenge that significantly affects its effectiveness. Shehu and Akintoye (2009) also concur with this finding, observing that a high level of alignment of PMO goals with those of the entire organization is required in order to ensure the overall effectiveness of the PMO. Lack of alignment in this case causes contradiction and conflicts in addition to misallocation and mismatch of resources.

From the findings of this study, lack of training and sufficient skills, and high staff turnover rates and reassignments was established as a key factor affecting PMO effectiveness. Moreover, these challenges were also negatively correlated with PMO maturity, suggesting that a PMO at a lower level of maturity was likely to experience these challenges more intensely. Particularly, as Shehu and Akintoye (2009) observe, skills are a critical resource for PMO effectiveness and new PMOs are usually at the stage most members of staff do not possess the required skills to execute the PMO strategy.

Another challenge that is linked to the newly developed hypotheses 7 of the present study, that PMO effectiveness, challenges and effectiveness are interconnected is inadequate resources, both human, financial and others. From the literature review, Stanleigh (2005) observed that resource constraints are a significant challenge to PMO effectiveness. The correlation of resource constraints with PMO maturity occurs since during the initial stages of PMO implementation, organizations find it a challenge to effectively consolidate available resources and allocate them appropriately in order to achieve PMO goals. Moreover, the mismatch may occur at the initial stages of PMO since due to constant change of goals and objectives and priorities that are not properly defined which make it difficult to achieve specific goals. Shehu (2008) also notes that constant revisions of PMO goals affect delivery time and ultimately PMO effectiveness. Hobbs, Aubury and Aubury (2007) as well as the findings of the current study observe that inadequate PMO staff is related to PMO effectiveness. Inadequate PMO staff according to the findings of this study is correlated to PMO maturity level, with lower level PMOs experiencing more staff shortages. Inadequate resource are

also linked to resource constraints according to Stanleigh (2005) since when resources are mismanaged or embezzled, they cannot be available for the tasks they were allocated to complete.

In terms of PMO scope and services, a comprehensive and effective PMO should encompass all four aspects of PMOs services which include i. Monitoring and reporting, ii. Controlling decisions and activities, iii, allocating resources to the projects and iv. Providing consultation during strategy implementation as well as providing recommendations (Project Arena, 2003).

In conclusion, the findings of this study have not only proven the research hypotheses of this study, but also developed a new one, which is PMO maturity level and PMO challenges are correlated with PMO effectiveness. The findings of the study suggest that the number and intensity of challenges experienced by a PMO are related to its maturity level. As such the younger a PMO is, the lesser is its ability to be effective, and the more challenges it experiences. Mature PMOs have both strategies, resources, goals and goal alignment in place to help enhance their effectiveness, but they also possess the experience and skills development required to achieve those goals. From the conclusions of the literature review, this study sought to prove the correlation the three variables, which are PMO maturity level, PMO challenges and PMO effectiveness, which have been not only been proven by the research findings, but also a new hypotheses that all three variables are interrelated.

CHAPTER 6 :

CONCLUSION & RECOMMENDATIONS

“The entire literacy canon may be smaller than what comes out of particle accelerators or models of the human brain, but the meaning coded into words can't be measured in bytes. It is deeply compressed. Twelve words from Voltaire can hold a lifetime of experience”

Martin Wattenberg

Conclusion

In conclusion, this study has satisfactorily established that there indeed is a relationship between the research hypotheses. These research hypotheses were

- i. There is relationship between maturity level and PMO effectiveness: Most respondents, both from the case studies and questionnaire survey indicated that their PMOs were at the second level, which is characterized by planned out stage. PMO has well defined organisational structure and staffing requirements, an identified PMO methodology, well established goals and objectives as well as process for reviewing performance metrics. The level is also characterized by roles and responsibilities, identified PMO process domains, defined lifecycle as well as cogent training requirements. For the PMOs that were still at the project planning level, they were still planning project initiation, identifying their mission and vision as well as goals and objectives. As such, the unclear objectives meant that the PMOs were not actively engaged towards meeting their goals and did not have a cogent mission or vision. Without the clear sense of direction, PMOs could not be effective.

- ii. There is relationship between PMO effectiveness and PMO challenges and Inadequate resources, accountability, inadequate PMO staff, organizational alignment, changing/ unclear expectations, interdepartmental politics, staff turnover, organization maturity, management resistance and lack of training or skills in that order, were the mostly reported challenges with interdepartmental politics being mostly reported by PMO directors. Hobbs, Aubury and Thuillier (2008) study concurs with these findings, cited as characteristics of PMOs that are not mature, which ultimately affects their effectiveness. With resistance to restructuring and reduced autonomy, sabotage was most likely with limited resources and lack of accountability implying that the PMO could not work towards its objectives, ultimately being rendered ineffective. Management resistance also impeded effectiveness considering the need for all elements of the organisation to be well aligned with the organisation goals. Without support, effectiveness could not be achieved. Moreover, Shehu and Akintoye (2009) also found that without adequate alignment of organizational goals, a PMO is unlikely to achieve effective planning and implementation of projects.

- iii. There is a relationship between PMO maturity level and PMO challenges. This hypothesis was proven by the fact that lower level PMOs appeared to face more challenges, compared to more mature PMOs. Among the most significant challenges was a lack of resources, a characteristic of lower level PMOs. Poor alignment with organisational goals as well as changing expectations indicated that the PMO had not mature well enough to have a clear path towards goal achievement as well as effective resource allocation and utilization.

- iv. Moreover, the study has been successful in developing a new hypothesis, which is- there is an interrelationship between all three variables, such that PMO maturity level affects PMO challenges, which in turn affect PMO effectiveness. This new hypothesis was created based on the interconnectedness of PMO maturity level, challenges and ultimately their ability to meet their objectives. PMOs at the lower level, most at level two, experienced greater challenges which ultimately prevented their effectiveness.

Based on the above, the study fulfilled its objectives by indentifying the potential challenges in government PMOs that seek to establish PMOs for the first time. In conducting the study, the entire PMO was analyzed in the literature review, which included PMO methodologies, scope and span, challenges as well as the relationship between all three variables of PMO maturity level, effectiveness and challenges. The quantitative and qualitative findings also reveled PMO effectiveness in relation to both internal and external factors . Challenges associated with the initiation stage of PMOs in government organizations were also explicitly identified as well as the degree to which PMO challenges influence PMO maturity levels and PMO effectiveness.

On average, the Government PMOs featured in this study were not fully effective. This is because of the numerous challenges they encountered during the initial set up stages and subsequent implementation. Most of the PMOs were not adequately prepared and lacked clear objectives, which ultimately made them unable to harness the resources of the organization to maximize benefits, and ultimately distributed this benefits within the organization. The initial set-up stages were observes as the most challenging since most immature PMOs experienced the most challenges. This was as a result of sabotage and lack of cooperation by project heads. The PMO was largely perceived as subverting the power and authority of project managers, who refused to cooperate or sabotaged the PMO. As such, it is recommended that before setting up of a PMO the organization initiates effective communication regarding the role, objectives, scope and responsibilities of the PMO as well as PMO staff. This would ensure the clear

outlining of roles and responsibilities, an authority structure that would reduce sabotage, internal and political conflicts and lack of cooperation among PMO staff. Another important factor to consider when setting up the PMO are the objectives of the PMO. Most young PMO were ineffective since they had no clear sense of direction and clear goals. It is therefore suggested that before setting up a PMO, objectives should first be established and adequate resources allocated to meet this objective. This will ensure that the PMO is well aligned with organizational goals, and limited to available organizational resources. This will ensure that government PMOs are able to meet their objectives and do not overshoot the budget.

Recommendations

Recommendation for industry

From the findings of this study, it is recommended that in setting up PMOs, organizations should not only consider organization goals, but also the resources that are available to achieve these goals. This is because a PMO with proper goals but lacking in sufficient resources, both human and financial, will ultimately impede the effectiveness of the PMO. It is also recommended that PMOs should endeavour, from the onset, to ensure that their goals are well aligned with those of the organization as this affects their effectiveness. Organizations should also identify strategies that enhance PMO maturity levels in areas that are not related to Time in Service.

Recommendation for future studies

In terms of future research on PMO effectiveness, the following studies are perceived as critical in the future.

- Conduct a study that investigates a number of strategies for improving maturity levels of PMOs. Having identified various types of challenges and their relationship to PMO maturity level and PMO effectiveness, another study is required for increasing PMO maturity in order to increase its effectiveness.

- Conduct a study that comprehensively investigates the correlation between PMO methodologies and PMO effectiveness. This study did not comprehensively address the correlation between PMO methodologies and effectiveness as well as the suitability for a particular methodology for a particular organisation or PMO situation.
- Conduct a study that analyzes ways of improving PMO processes to enhance effectiveness. A study is required to identify strategies for improving PMO processes. PMO processes have been identified as having a significant impact on the degree of PMO effectiveness, hence the need for a future study that identifies ways of improving PMO processes. This is especially so since some PMO processes are suitable for achieving particular organisational objectives, while others may not be well suited depending on the structure of the organisation as well as the scope intended for the PMO.

CHAPTER 7:

FUTURE RESEARCH

“Research serves to make building stones out of stumbling blocks”

Little Arthur, D.

In order to further synthesis the implications hypothesis seven (7) of this study, that that there is an interrelationship between all three variables of this study namely i. PMO effectiveness, ii. PMO maturity level and iii. PMO maturity level it is recommended that the researcher attends practical training in one of the government organization as im not working in order to get a good experience of what exactly is being done in PMO. Moreover, more skills and experience in using the statistical analytical software SPSS are required in order to obtain more professional graphs. It is also recommended that in future, the study and questionnaire will be done in English, which will facilitate more inclusiveness for other PMOs that are not affiliated with the government. It is also recommended for a larger sample through the inclusion of government PMOs, which will also require more inputs. Moreover, contrary to the approach in this study, it is recommended that the future research use only one questionnaire and set of questions to make it easier for the researcher to link the findings. A separate link for each organization should also be used to enable the categorization of data and comprehension of each PMO situation.

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**APPENDIX 1 : Advanced Project Portfolio Management
and the PMO Certificate**



APPENDIX 2 :Building and Sustaining the PMO Training Certificate



British University in Dubai
Dubai, UAE

Dated: 07th April 2011

To Whom It May Concern

This is to certify that Ms. Maryam Hussain AL Balooshi – UAE National, with ID Number 80136 attended a 5 day training course, Building and Sustaining the Program Management Office (PMO), last 07 – 11 November 2010. Ms. Maryam was invited to attend the course on a "complimentary basis" to help in her dissertation topic "PMO Challenges in the Government Sectors in UAE".

Course Description:

This course starts by explaining the acronym and its possible meanings, before moving on to discussing results of a global survey into the current state of PMO practice, and a general understanding of the pitfalls.

The course covers the key concepts and applications of the PMO along a maturity continuum. The topics will include organizational structures, functions, processes and practices that will lead to success. It addresses the organizational challenges of the PMO, how a proper "customized" PMO can add value to the organization, and increase the Return on Investment related to project implementation.

For SUKAD.



Mr. Mounir Ajam

CEO
SUKAD FZ LLC



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APPENDIX 3 :PMO Challenges in the Government – Directors Survey

2011 PMO 1.0 Survey: Major Challenges to the Successful Implementation and Practice of PMO in the Government Organization

Section One: Demographics

A-Responses by Industry and Role

- Q1 What is your role
- Director Manager of PMO
 - PMO Sponsors/Stakeholders
 - PMO Staff
 - Project Manager
 - Functional Manager
 - Supporting consultant / Vendor
 - Others
- if others please specify*
-

B-PMO Organization and Structure

- Q2 Does your organization Have Multiple PMOs?
- Yes
 - No
- Q3 PMO's in your organizational structure
- Enterprise Project Management (EPMO)
 - Business PMO (BPMO)
 - Portfolio PMO (P#PMO)
 - Program PMO (Pg PMO)
 - Project PMO (PPMO)
 - Others
- if others please specify*
-
- Q4 What is the Total Number of Employees in your Organization?
- <100
 - 101-500
 - 501-1000
 - 1001-5000
 - 5001-10000
 - More than 10000
- Q5 How did organization establish PMO
- Internal Resources
 - Local Consultant
 - Int'l Consultants
 - Hired Manager
 - Others
- if others please specify*
-
- Q6 Established PMO as :
- A new organizational unit
 - A new organizational unit AND implement a PM system or methodology
 - Others
- if others please specify*
-

C.Scope and Span of PMO Services

Q7 What is the Scope and Span of PMO Services in the organization?

- Enterprise
- Line of business/Business unit
- Engineering Dept
- Product Dept
- Marketing Dept
- IT Dept
- Others

if others please specify

Q8 General Scope of PMO Responsibilities

- All Planned Work and Resources , but NOT Operations
- All Planned Work and Resources INCLUDING Operations
- Major Projects Only

Q9 PMO Functions

- Repor Project status to upper management
- Develop and implement a standard methodology
- Monitor and control project performance
- Develop competency of personnel , including training
- Implement and operate a project information system
- Provide advice to upper management
- Co ordinate between projects
- Develop and maintain a project scoreboard
- Promote Project Management within organization
- Monitor and control performance of PMO
- Participate in strategic planning
- Provide mentoring for project managers
- Identify , select and prioritize new projects
- Mange archives of projects documentation
- Conduct project audits
- Provide interface between management and customer
- Provide a set of tools without an effort to standardize
- Execute specialized tasks of project managers
- Allocate resources between projects
- Conduct post- project reviews
- Implement and manage database of lessons learned
- Implement and manage risk database
- Manage benefits
- Provide networking and environmental scanning
- Recruit , select , evaluate and determine salaries for project managers
- Others

if others please specify

D-PMO Line of Reporting , Naming , Staffing and Tenure

- Q10 PMO Line of reporting
- Dept. Head
 - Bus. Unit
 - COO/CFO
 - VO
 - CSO/VP Strategy
 - CEO
 - CIO/CTO
 - Others
- if others please specify
-
-
- Q11 PMO Staff Size
- Less than 4
 - 4-6
 - 7-9
 - 10-12
 - 13-15
 - More than 15
- Q12 Number of Constituents Supported by PMO
- Less than 100
 - 101-500
 - 501-1,000
 - More than 1,000
- Q13 PMO Time in Service
- < 1 Year
 - 1-2 Years
 - 3-4 Years
 - 5 Years or more
 - PMO in Development
 - Others
- if others please specify
-
-
- Q14 Typical names of PMO
- Project Management Office
 - Program Management Office
 - Corporate / Enterprise PMO
 - Others
- if others please specify
-
-
- Q15 Title of PMO Head
- PMO Manager
 - PMO Director
 - Chief / VP / CIO / COO
 - Area/ Business / Department Manager
 - Director / head Strategy & Planning
 - Head Operational Excellence
 - Others
- if others please specify
-

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Section Two : Process Maturity and performance

A - Self Assessed Process Maturity

- Q16 Based on your observation, at what level is the PMO process maturity level in your organization? would you put your PMO at
- Level 1 - Most Business Processes are informal or undefined
 - Level 2 - Most Business Processes are defined, but not well adopted
 - Level 3 - Most Business Processes are defined, repeatable and followed
 - Level 4 - Most Business Processes are aligned and have performance measures
 - Level 5 - Most Business Processes are optimized and continually improved based on their performance
- Q17 Your PMO Scope is extend to
- Projects Only
 - All Planned Work but not Ops
 - All Planned Work incl. Ops
 - Others
- if others please specify
-

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B-Type of Processes Being Employed

- Q18 Methodologies Employed
- Agile
 - PMI
 - Prince 2
 - Stage Gate
 - Waterfall
 - Others
- if others please specify
-
- Q19 What is the current Work Planning Process being applied?
- Full Adaption
 - Partial Adoption
 - Influential
 - Evaluating
- Q20 What is the level and scope of IT Service Management Process
- ITIL (IT Infrastructure Library)
 - MOF (Microsoft Operating Framework)
 - Others
- if others please specify
-

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Section Three: Operational Challenges

- Q21 In which of these areas is PMO experiencing the most Organizational challenges?
- | | <i>Critical Problem</i> | <i>Significant Challenge</i> | <i>Minor Issue</i> | <i>Not a Problem</i> | <i>Not Applicable</i> |
|---------------------------------|-------------------------|------------------------------|-----------------------|-----------------------|-----------------------|
| Interdepartmental Politics | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Management Resistance | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Changing / Unclear Expectations | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Organization Maturity | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Organizational Alignment | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Inadequate Resources | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of accountability | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Staff Turnover/ Reassignment | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Inadequate PMO Staff | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of Training or Skills | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
- Q22 In which of this areas is PMO experiencing Process Challenges?
- | | <i>Critical Problem</i> | <i>Significant Challenge</i> | <i>Minor Issue</i> | <i>Not a Problem</i> | <i>Not Applicable</i> |
|------------------------------|-------------------------|------------------------------|-----------------------|-----------------------|-----------------------|
| Undefined Strategy | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Undefined Investment Process | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Uncontrolled Demand | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| No/Poor Priorities | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of Formal Processes | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ineffective Processes | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Process Complexity | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Financial Management | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Communications | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
- Q23 In which of these technology aspects is PMO experiencing Technology Challenges ?
- | | <i>Critical Problem</i> | <i>Significant Challenge</i> | <i>Minor Issue</i> | <i>Not a Problem</i> | <i>Not Applicable</i> |
|------------------------------|-------------------------|------------------------------|-----------------------|-----------------------|-----------------------|
| Metrics and Reporting | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ineffective / Obsolete Tools | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of Infrastructure | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
- Q24 In which of these areas is PMO experiencing Situational Challenges ?
- | | <i>Critical Problem</i> | <i>Significant Challenge</i> | <i>Minor Issue</i> | <i>Not a Problem</i> | <i>Not Applicable</i> |
|------------------------------|-------------------------|------------------------------|-----------------------|-----------------------|-----------------------|
| Dynamic Business Environment | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Emerging / Disruptive issues | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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Section Four : PMO Effectiveness

- Q25 Self Assessed PMO of Respondents
- | | <i>Outstanding</i> | <i>Very Good</i> | <i>Good</i> | <i>Fair</i> | <i>Poor</i> |
|-----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Internal Relationships | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| External Relationships | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Organizational Culture | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Timely delivery of projects | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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Section Five : Recommendations

Q26 Where objectives met
 Yes
 No

Q27 PMO Success
 Highly Successful
 Successful
 Neutral
 Not Successful
 Failure
 Others
if others please specify

Q28 Planned 2011 PMO Initiative
 Reporting /Analytical /Dashboards
 Improve Core Business Processes
 Update Supporting Apps/ Technology
 Extend Scope of PMO to Strategic Support
 Business Process Automation
 Improve / Add Financial Mgmt Functions
 Extent scope of PMO to Services & products
 Change PMO Positioning in Org
 Align / Consolidate Current PMOs
 Initiate a PMO
 No Significant Improvement Planned
 Others
if others please specify

APPENDIX 4: PMO Challenges in the Government – Staff Survey

2011 PMO 1.0 Survey: Major Challenges to the Successful Implementation and Practice of PMO in the Government Organization

Section One: Demographics

A-Responses by Industry and Role

- Q1 What is your role
- Director Manager of PMO
 - PMO Sponsors/Stakeholders
 - PMO Staff
 - Project Manager
 - Functional Manager
 - Supporting consultant / Vendor
 - Others
- if others please specify
-

Section Two : Process Maturity and performance

A - Self Assessed Process Maturity

- Q16 Based on your observation, at what level is the PMO process maturity level in your organization? would you put your PMO at
- Level 1- Most Business Processes are informal or undefined
 - Level 2- Most Business Processes are defined, but not well adopted
 - Level 3 - Most Business Processes are defined , repeatable and followed
 - Level 4 - Most Business Processes are aligned and have performance measures
 - Level 5 - Most Business Processes are optimized and continually improved based on their performance
- Q17 Your PMO Scope is extend to
- Projects Only
 - All Planned Work but not Ops
 - All Planned Work incl. Ops
 - Others
- if others please specify
-

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B-Type of Processes Being Employed

- Q18 Methodologies Employed
- Agile
 - PMI
 - Prince 2
 - Stage Gate
 - Waterfall
 - Others
- if others please specify
-
- Q19 What is the current Work Planning Process being applied?
- Full Adaption
 - Partial Adoption
 - Influential
 - Evaluating
- Q20 What is the level and scope of IT Service Management Process
- ITIL (IT Infrastructure Library)
 - MOF (Microsoft Operating Framework)
 - Others
- if others please specify
-

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Section Three: Operational Challenges

Q21 In which of these areas is PMO experiencing the most Organizational challenges?

	<i>Critical Problem</i>	<i>Significant Challenge</i>	<i>Minor Issue</i>	<i>Not a Problem</i>	<i>Not Applicable</i>
Interdepartmental Politics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Management Resistance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Changing / Unclear Expectations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organization Maturity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organizational Alignment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inadequate Resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of accountability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff Turnover/ Reassignment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inadequate PMO Staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of Training or Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q22 In which of this areas is PMO experiencing Process Challenges?

	<i>Critical Problem</i>	<i>Significant Challenge</i>	<i>Minor Issue</i>	<i>Not a Problem</i>	<i>Not Applicable</i>
Undefined Strategy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Undefined Investment Process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uncontrolled Demand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No/Poor Priorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of Formal Processes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ineffective Processes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Process Complexity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Financial Management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q23 In which of these technology aspects is PMO experiencing Technology Challenges ?

	<i>Critical Problem</i>	<i>Significant Challenge</i>	<i>Minor Issue</i>	<i>Not a Problem</i>	<i>Not Applicable</i>
Metrics and Reporting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ineffective / Obsolete Tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of Infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q24 In which of these areas is PMO experiencing Situational Challenges ?

	<i>Critical Problem</i>	<i>Significant Challenge</i>	<i>Minor Issue</i>	<i>Not a Problem</i>	<i>Not Applicable</i>
Dynamic Business Environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emerging / Disruptive issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Section Four : PMO Effectiveness

Q25 Self Assessed PMO of Respondents

	<i>Outstanding</i>	<i>Very Good</i>	<i>Good</i>	<i>Fair</i>	<i>Poor</i>
Internal Relationships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
External Relationships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organizational Culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Timely delivery of projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Section Five : Recommendations

Q26 Where objectives met
 Yes
 No

Q27 PMO Success
 Highly Successful
 Successful
 Neutral
 Not Successful
 Failure
 Others
if others please specify

Q28 Planned 2011 PMO Initiative
 Reporting /Analytical /Dashboards
 Improve Core Business Processes
 Update Supporting Apps/ Technology
 Extend Scope of PMO to Strategic Support
 Business Process Automation
 Improve / Add Financial Mgmt Functions
 Extent scope of PMO to Services & products
 Change PMO Positioning in Org
 Align / Consolidate Current PMOs
 Initiate a PMO
 No Significant Improvement Planned
 Others
if others please specify

APPENDIX 5: A Copy of Letter “To Whom it may concern” – Survey participation



07 November 2010

To Whom It May Concern

This is to certify that **Ms Maryam Hussain Hassan Ahmad Albalooshi – Student ID No. 80136** is a registered part-time student on the Master of Science – Project Management programme in The British University in Dubai, from **January 2009**.

Ms Albalooshi is currently working on a dissertation as part of the programme requirements. The main purpose of this research is to identify and characterize the challenges and possible mistakes in government organizations as they strive to implement a centralized project control point through establishment of Project Management Offices. It focuses on the initial hurdles and setbacks associated with lower maturity stages of the implementation process.

Her dissertation topic is "What will be the challenges and potential mistakes in government organizations that try to establish a PMO for first time?" (Case Studies). She is required to gather data by distributing some questionnaires. Any support provided to her in this regard will be highly appreciated.

This letter is issued on Ms Albalooshi's request.

Yours sincerely,


Nandini Uchil
Head of Student Administration



P O Box 345015, DIAC, Dubai, United Arab Emirates
Tel: + 971 4 391 3626 Fax: + 971 4 366 4698

APPENDIX 6: A Copy of Letter “To Whom it may concern” – Interview participation



22 March 2011

To Whom It May Concern

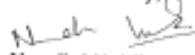
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