



## **“Effect of PMO and its Attributes on Project Success”**

**" مكتب إدارة المشاريع وأهم خصائصه المؤثرة على نجاح المشروع "**

**by**

**AMNA ALBLOOSHI**

**A dissertation submitted in fulfilment  
of the requirements for the degree of  
MSc PROJECT MANAGEMENT**

**at**

**The British University in Dubai**

**Prof. Boussabaine Halim  
January 2018**

## DECLARATION

I warrant that the content of this research is the direct result of my own work and that any use made in it of published or unpublished copyright material falls within the limits permitted by international copyright conventions.

I understand that a copy of my research will be deposited in the University Library for permanent retention.

I hereby agree that the material mentioned above for which I am author and copyright holder may be copied and distributed by The British University in Dubai for the purposes of research, private study or education and that The British University in Dubai may recover from purchasers the costs incurred in such copying and distribution, where appropriate.

I understand that The British University in Dubai may make a digital copy available in the institutional repository.

I understand that I may apply to the University to retain the right to withhold or to restrict access to my thesis for a period which shall not normally exceed four calendar years from the congregation at which the degree is conferred, the length of the period to be specified in the application, together with the precise reasons for making that application.



Signature of the student

## **COPYRIGHT AND INFORMATION TO USERS**

The author whose copyright is declared on the title page of the work has granted to the British University in Dubai the right to lend his/her research work to users of its library and to make partial or single copies for educational and research use.

The author has also granted permission to the University to keep or make a digital copy for similar use and for the purpose of preservation of the work digitally.

Multiple copying of this work for scholarly purposes may be granted by either the author, the Registrar or the Dean of Education only.

Copying for financial gain shall only be allowed with the author's express permission.

Any use of this work in whole or in part shall respect the moral rights of the author to be acknowledged and to reflect in good faith and without detriment the meaning of the content, and the original authorship.

## ABSTRACT

**Purpose:** The Project Management Office has become in trend in many organisations, although its role and maturity level differs from an organisation to another. There is extensive research that claims a direct correlation between PMO existence (within the organisation) and the successful delivery of projects (within the organisation), however a critical review of the literature does not actually articulate which precise attributes of PMO's contributes to specific elements of project success. These factors are likely to have a negative impact on the confidence of organisations to invest significant resources in establishing PMO's. This paper aims at examining how PMO's can effectively contribute to the successful delivery of projects, by critically reviewing the existing literature on 'PMO's' and 'project success' concepts and facilitating a clear understanding of their relationships; evaluating the roles and attributes of PMOs and their impact upon the successful delivery of projects, and utilising empirical data to gain an understanding of the relationship between the roles and attributes of PMOs and their impact upon the successful delivery of projects.

**Design/Methodology/Approach:** Since the research is exploratory in nature and aims at gaining insight into the topic of discussion, the researcher used a qualitative research method through structured interviews. The sample of respondents was selective in nature and aimed at project management professionals in a project-oriented organisation. Respondents' experience and knowledge was important to ad expert insight into the study.

**Findings:** The findings of the study revealed that there is a positive relationship between the establishment of a PMO and enhancement of project success— taking into

consideration that the PMO and its relevant governance structures are well established in the organisation. though no actual, quantifiable link has been taken into consideration. The PMO is well-established in the organisation under study, and contributes to the enhancement of the projects. So using the organisation as an example, and in order to better understand this link and capture the relationship, the author suggests measuring success levels and factors according to the PMO's function/level in the organisation.

**Research Limitations/implications:** This research was limited to a specific group of professionals in one organisation, using one research method only.

**Originality/value:** The findings of this paper could be used as a baseline for further research in the field relevant to the UAE.

**Keywords:** Project Management Office, project hierarchy, project governance, project success.

## مُلَخَّص

كضرورة ملحة للتغيرات المتسارعة، وتوجه المنظمات للتركيز بمشاريعها وجعلها على قائمة أولوياتها، أصبح مكتب إدارة المشاريع حاجة ملحة للعديد من المنظمات، اعتقاداً من تلك المنظمات بدور هذه المكاتب في دعم نجاح المشاريع. ورغم تعدد الدراسات التي تتحدث عن دور مكاتب إدارة المشاريع في إنجاح مشاريع المنظمات، إلا أنه لم تتوفر حتى الآن الوصفة السحرية التي نخبرنا بكيفية تحقيق ذلك. حيث أن أدوار مكاتب إدارة المشاريع تختلف من منظمة لأخرى، وكذلك مفهوم نجاح المشروع من فشله. فحتى الآن لا يوجد تعريف واضح لمكتب إدارة المشاريع أو حتى قائمة معتمدة توضح الأدوار الأساسية لمكتب إدارة المشاريع، والأمر كذلك بالنسبة لمعايير نجاح المشاريع.

تتلخص أهم مخرجات الدراسة في إيجاد محاور مشتركة لمكاتب المشاريع وربطها بمعايير محددة لنجاح المشاريع، وإيجاد ما يربط بين الاثنين. وقد تم استخدام إحدى المنظمات المتخصصة في إدارة المشاريع كمثال، وتمت مقابلة عدد من الموظفين في تلك المنظمة المتخصصين في مجال إدارة المشاريع للنظر في مفهوم مكتب إدارة المشاريع ودوره في منظماتهم.

في نهاية الدراسة تم استنتاج أن بإمكان المنظمة أن تقيس معدل نجاح مشاريعها وتربطها بدور مكتب إدارة المشاريع إن كانت تملك سياسات ومعايير واضحة لمكتب إدارة المشاريع ودوره في المنظمة، بالإضافة إلى معايير واضحة لعوامل نجاح المشاريع لديها. كما أن عوامل نجاح المشاريع تختلف باختلاف دور مكتب إدارة المشاريع في المنظمة.

## **ACKNOWLEDGMENTS**

I would like to first thank my supervisor, Professor Udechukwu Ojiako and Professor Boussabaine Halim for helping me with this dissertation; their support and encouragement have greatly enriched this dissertation.

I would also like to thank my employer, for providing me with the resources necessary to fulfil my research method.

Lastly, I would like to thank my family for supporting me to overcome the obstacles faced during my work on this dissertation.

## **DEDICATION**

I dedicate this dissertation to my father, whom I consider my biggest supporter and challenger, as without him, I would not have reached to this level of education.



## TABLE OF CONTENTS

List of Tables	12
List of Figures	13
Chapter 1: Introduction	14
1.1 Project, Programme and Portfolio	14
1.2 Project Management	15
1.3 Project Hierarchy	16
1.4 Project-based Organisations	17
1.5 Project Governance	18
1.5.1 Organisational Governance	18
1.5.2 Project Governance vs. Governance of Projects	21
1.6 Forms of Project Governance—Project/programme Management Office (PMO)	21
1.7 Project Management Office (PMO)	22
1.8 Role(s) of PMOs	23
1.9 Types of PMOs	24
1.10 Project Success	25
1.11 Relationship between PMO and Project Success	27
1.12 Problem Statement	28
1.13 Research Aims and Objectives	29
1.14 Research Map	30

<u>Chapter 2: Literature Review</u>	<u>32</u>
<u>2.1 Introduction</u>	<u>32</u>
<u>2.2 Project Success vs. Failure</u>	<u>32</u>
<u>2.2.1 Project Success</u>	<u>32</u>
<u>2.2.2 Project Failure</u>	<u>34</u>
<u>2.3 Project Management Office (PMO)</u>	<u>36</u>
<u>2.3.1 Evolved PMO</u>	<u>39</u>
<u>2.4 Relationship between Project Success and PMOs</u>	<u>40</u>
<u>2.5 RTA: a case of a projectised organisation</u>	<u>42</u>
<u>Chapter 3: Conceptual Framework</u>	<u>46</u>
<u>3.1 Introduction</u>	<u>46</u>
<u>3.2 Theories and Models</u>	<u>46</u>
<u>3.3 Conceptual Framework</u>	<u>49</u>
<u>Chapter 4: Research Design and Methodology</u>	<u>50</u>
<u>4.1 Introduction</u>	<u>50</u>
<u>4.2 Research Approach</u>	<u>50</u>
<u>4.3 Research Method and Data Type Collected</u>	<u>52</u>
<u>4.4 Data Collection Method</u>	<u>53</u>
<u>4.5 Research and Data Collection Tools and Sampling</u>	<u>55</u>
<u>Chapter 5: Research Findings and Analysis</u>	<u>60</u>
<u>5.1 Introduction</u>	<u>60</u>

5.2 Respondent's Background	60
5.3 PMO's Roles & Project Success Perceptions	63
5.3.1 PMO's Role and Functions	63
5.3.2 Project Success	64
5.3.3 PMO's Maturity Level	65
Chapter 6: Discussion of Findings	67
6.1 Background and Overall Aims	67
6.2 Relationship between PMO and Project Success	67
Chapter 7: Conclusion and Recommendations	71
7.1 Relevance of the Topic	71
7.2 Overall Study Findings	72
7.3 Recommendations and Areas for Future Research	73
List of References	74
Appendices	83

## LIST OF TABLES

No	Title / Topic	Page
1	Organisational Influences on Projects	17
2	The Five Dimensions of Project Success	26
3	Advantages of Implementing a PMO	28
4	Research Map	31
5	Measuring Success Across Time	33
6	Reasons for Project Failure in 3 Cases	36
7	Types of PMOs	39
8	Evolved PMO Capabilities	40
9	PM Functions and Services	42
10	Difference between Qualitative and Quantitative Methods	51
11	Summary of the three Perspectives on the Interview Method	55
12	Research Questions and References	58
13	Project Success at Different PMO Levels	69

## LIST OF FIGURES

No	Title / Topic	Page
1	Governance Petal Diagram	19
2	Governance Wheel	21
3	Why Projects Fail	35
4	PMO Competency Continuum	38
5	PM Evolution in RTA	43
6	EPMO Structure in Large Organisations	45
7	Organisational Project Management: A Conceptual Framework	47
8	Petro and Gardiner's Conceptual Framework	48
9	Conceptual Framework on the Relationship between Project Governance and Project Success	48
10	Proposed Conceptual Framework	49
11	Respondents' Demographics	62

## CHAPTER 1: INTRODUCTION

### 1.1 Project, Programme and Portfolio

Before starting to talk about the project management office, it is important to define the terms project and project management. The most commonly used definition of the term *project* in research is the one established by the Project Management Institute (PMI): “a temporary endeavour undertaken to create a unique product, service or result” (PMI 2014, p.5). Another similarly common elaboration of the term is that of the Association of Project Management (APM), which describes a project as “a unique, temporary endeavour, undertaken to achieve a specific objective within certain specifications, using appropriate resources” (APM, 2016; Rosenau, 1998). Merriam-Webster Online Dictionary (2016) describes the term endeavour as a “serious determined effort” or “activity directed toward a goal”. Thus, we can describe a *project* in simple terms as a set of temporary, controlled and planned activities aimed towards delivering one-off product(s), service(s) or outcome(s), using certain resources within certain circumstances.

A *Programme*, on the other hand is a set of interrelated projects with similar goal(s). The Association of Project Management (APM, 2016) defines a programme as “a group of related projects that together achieve a beneficial change of a strategic nature for an organisation”. A *portfolio* is a broader term that describes “a collection of projects or programmes and other work that are grouped together to facilitate effective management of that work to meet strategic business objectives” (PMI, 2004 p.8).

## 1.2 Project management

It can be acknowledged from the definitions stated above that working on a project (or a collection of projects) incorporates employing certain expertise, tools and techniques to the project activities in order to realise the final objectives. This practice is called *Project Management* (APM 2016). According to the PMI (2004, p.6), project management is defined as “the application of knowledge, skills, tools and techniques to project activities to meet the project requirements”. Turner (1996 in Gardiner 2005, p.55) describes project management as the “art and science of converting vision into reality”.

Since its early rise in the 1950s, research on project management has developed significantly, making use of disciplines like marketing, strategic management and organisation theory, to mention but a few (Söderlund, 2011). Researchers have recognised project management as an important knowledge field of study due to the vast socio-economic impact of projects in long-term survival of organisations (Bredillet, 2014). Belout & Gauvreau (2004, p.1) confirm that project management has become “a key activity in most modern organisations”. Managing multiple projects—including programs and portfolios has become a principal model in organisations (Too & Weaver, 2014). Thus, knowledge in this field has become of great importance, and organisations as well professionals interested in project management have identified and adopted international standards like the PMBOK and APMBOK to ensure effective implementation of project management practices.

Nevertheless, it is important to distinguish between project management and the management of projects, as Morris (2006, in Morris & Pinto 2007) argues. According to

him, the first term is a central one that describes the traditionally known project management practices, while the other term incorporates a broader perspective of the relationship between projects and their settings. Thus, portfolio management for example fits within the second term context, since it deals with managing a collection of projects concurrently within one organisation setting.

### 1.3 Project Hierarchy

As described earlier, projects are managed in different ways using different concepts and knowledge areas. The organisational hierarchy is one of the factors that dictate how a project or a set of projects are managed (PMI, 2004). Table (1) further elaborates on this, by showing the link between the organisational structure and project manager's role. It is noted from the table that a project manager's authority is high in a projectised organisation compared to a functional organisation, while it can be somewhere between the two in a matrix organisation. The same is true for resource availability, which can be high to almost total in project-oriented organisations, compared to functional and matrix organisations.

Organization Structure	Functional	Matrix			Projectized
Project Characteristics		Weak Matrix	Balanced Matrix	Strong Matrix	
Project Manager's Authority	Little to None	Limited	Low to Moderate	Moderate to High	High to Almost Total
Resource Availability	Little to None	Limited	Low to Moderate	Moderate to High	High to Almost Total
Who controls the project budget	Functional Manager	Functional Manager	Mixed	Project Manager	Project Manager
Project manager's role	Part-time	Part-time	Full-time	Full-time	Full-time
Project management administrative staff	Part-time	Part-time	Part-time	Full-time	Full-time



Table (1): Organisational Influences on Projects. Source: PMI, 2004, pp. 28
---

In typical organisational hierarchies, the top management usually appoints the project manager; making their authority based on the status-hierarchy and giving them power over the rest of the team members. Despite the legitimacy however, the project manager stays part of the corporate hierarchy and officially reliant on that hierarchy to obtain the necessary resources and approvals for their projects they are handling (Clegg and Courpasson 2004). This in turn can cause a tension between the personal and the hierarchical means for the project manager, leading them to favour customisation in order to ensure project success. In strong matrix and projectised organisations, the project manager's role is fully dedicated to the project(s) and he/she has full control over the project budget and resources.

## **1.4 Project-based Organisations**

Alekseev (2010) describes project-based organisations as those organisations that consider their projects the main business driver for managing and coordinating all the main business functions. Literature confirms that organisations' adoption of multi projects and project-based organisations is increasing worldwide (Too & Weaver, 2014; Killen & Hunt, 2013; Desta, et. al., 2006).

According to Desta, et al., (2006) many organisations have adopted Project Management Office (PMO) concepts believing that project management (PM) practices lead to enhanced organisational performance and success. Researchers like Madter, et al., (2012) are convinced that project management has surpassed the traditional bureaucratic hierarchies, which consist of first line supervisors, middle managers and executives. Those

organisations are shifting towards becoming project-based in order to fit in today's complex environment. According to Aubry (2011), today's complex businesses are becoming multi-dimensional and project-oriented in structure due to the economic growth and many other similar factors. Eve (2007) supports that by confirming that companies like IBM, GM, HP, Boeing that have adopted project management 'way of working' witnessed considerable reductions in defects, reworks, and scope change, in addition to increased profits and return on investment.

## **1.5 Project governance**

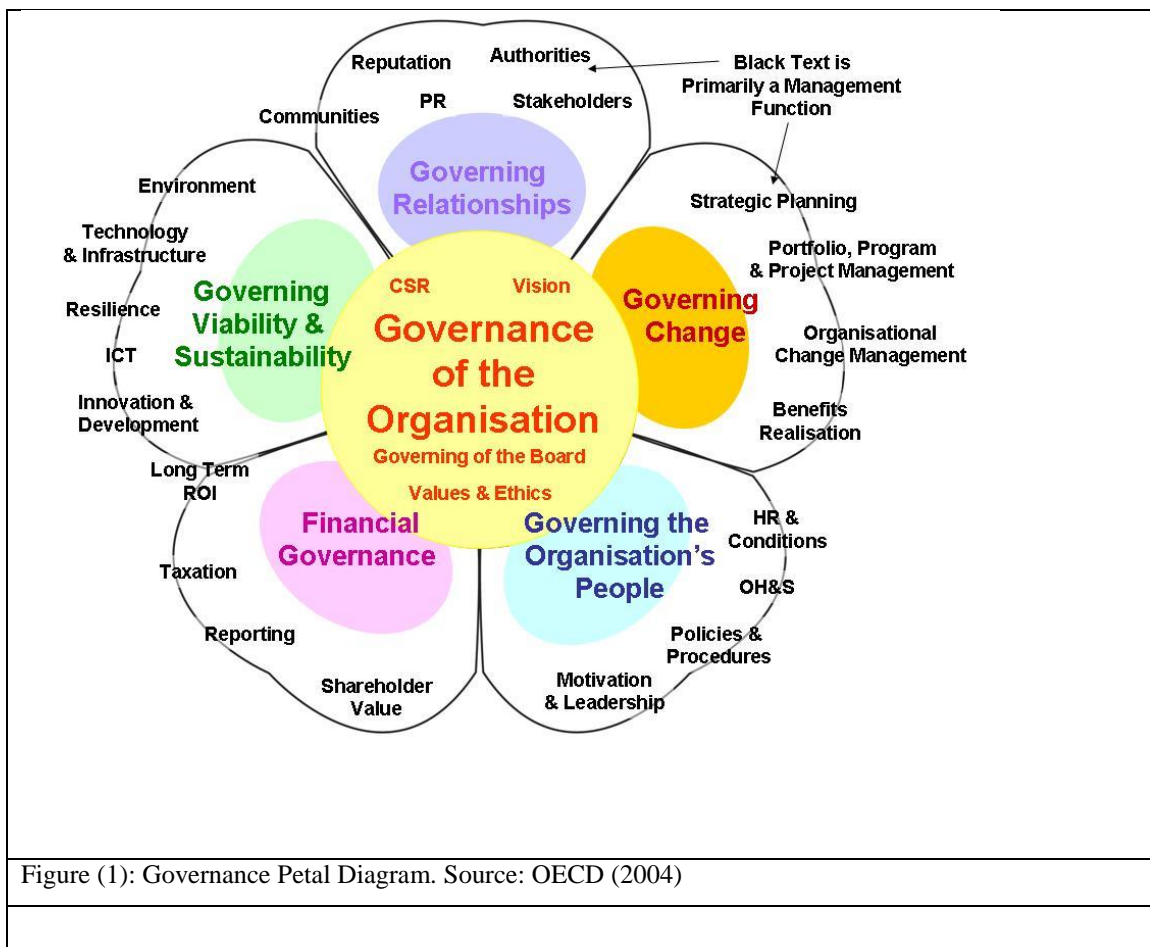
Equally important to project hierarchy in the organisation is the project governance. Recent research in project governance evolved to discuss project alliances to strategy and the relationship between project owners and project executers (Söderlund, 2011). However, it is important to note that there is a difference between project governance, the governance of projects and overall organisational governance system. The following sections will describe the concepts in further details.

### ***1.5.1 Organisational Governance***

Governance in the organisational context is a broad term that refers to the system of rules and practices that an organisation establishes to ensure authority, transparency, accountability and defined roles and responsibilities (Muller 2009, in Alarai 2016). One of the common organisational governance frameworks found in many researches is the governance petal, developed by the Australian Institute of Company Directors (AICD) and the OECD (2004) and outlined in figure (1). The figure represents five petals that

incorporate five themes of governance: relationships, change, people, finance and sustainability. The centre represents the core values of the organisation that should be embedded in each governance area to ensure overall stability and harmony.

Extending out from the centre, each petal emphasises on the particular skills and knowledge required for the defined area of governance. For example, the diagram shows that managing Portfolios, Programs and Projects (PPPM) is incorporated under the 'governing change' petal, which is an integral part of the overall organisational/corporate governance.



Another concept on governance is the Governance Wheel, described in figure (2), which explores the principles of governance through corporate, strategic, programme, IT, and project perspectives. Like the Governance Petal, this concept states that governance exists at many levels in a single organisation. The strategic governance focuses on high, strategic decisions that are concerned with dealing with uncertainty, strategic alignment and project portfolio and benefit realisation. The corporate governance represents the “command system” of the organisation, such as the board of directors. The programme governance represents the system that ensures optimal resource allocation and interdependencies between projects. Project governance ensures the ongoing operation of the projects. Enterprise and IT governance ensures that the main work components work together effectively, through utilising the financial, IT and human resources to the optimal level. Project governance sets the structures, systems and processes to ensure effective delivery of projects (Gardiner, 2005).

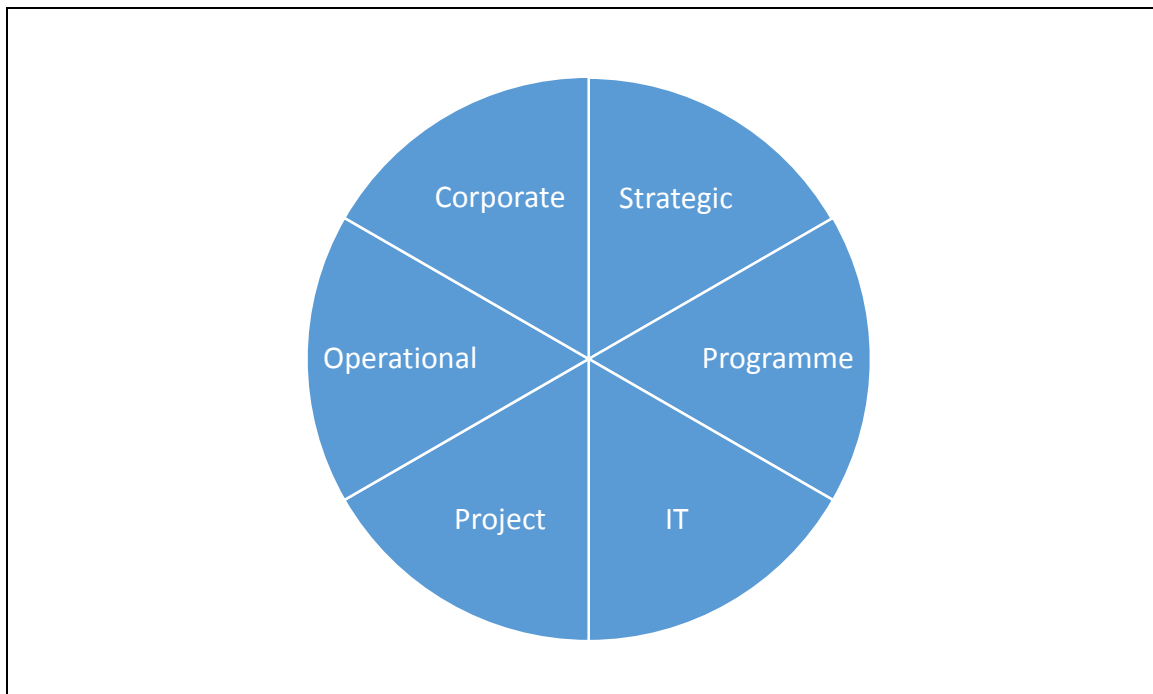


Figure (2): Governance Wheel. Source: Gardiner, 2005.

### ***1.5.2 Project Governance vs. Governance of Projects***

Governance in the field of projects takes place at several levels, like individual projects and multiple projects (Joslin & Müller 2016). Project governance is concerned with governing a particular project from the release of the project charter until project closure (Müller, et al., 2014). Thus, project management can be considered one way of governing a project.

Governance of projects is concerned with governing a portfolio of projects from the initial concept to early operation of projects' deliverables (Müller, et al., 2014). Governance of projects, or *Project, Programme and Portfolio (PPP) governance* as described in some research using the Mosaic Project Services definition of: "the set of policies, regulations, functions, processes, procedures and responsibilities that define the establishment, management and control of projects, programs and portfolios" (Mosaic, 2012). So referring back to the governance petal model described in the previous section, PPPM under organisational change can be considered a 'governance of projects' method.

## **1.6 Forms of Project governance--Project/programme management office (PMO)**

As stated earlier, organisations' adoption of multi projects and project-based organisations is increasing worldwide, and so is the complexity of managing those projects (Too & Weaver, 2014; Killen & Hunt, 2013; Desta, et. al., 2006). This has necessitated the creation of a well-defined, disciplined entity concerned with managing multiple projects (Too &

Weaver, 2014; Milin et. al., 2012) while ensuring governance and organisational strategic alignment.

This entity or project governance body takes different features in organisations. It can be incorporated in an executive office, a steering committee, or a project/portfolio/programme management office, to carry out its governance functions. The responsibilities of the project governance body include monitoring and supervising the overall project management process, encouraging continuous improvement and intervening if the project is not providing the intended use-value. On behalf of the owner, the governance body is also responsible for making decisions and answering questions related to projects (Hjelmbrekke, et al., 2014). For the purpose of this study, the coming sections will focus on the project management office (PMO) as a project governing body in organisations.

## **1.7 Project Management Office (PMO)**

Overseeing different projects within an organisation has progressed over time from a group of project management staff dedicated to achieve this goal into a project management centre, known as the Project Management Office (PMO) nowadays (Darling & Witty, 2016). According to Jerbrant (2013), the PMO is the most common way of initiating and emphasising the concept of project-based organisation. PMO is alternatively known as project office (PO), PM centre of excellence (PMCoE), programme/support office (PSO) (Desta, et. al., 2006). This entity has become responsible for coordinating and managing the organisational projects, integrating the organisational resources within line function (Khalema, et al., 2015), and presenting best practices and techniques in project management (Milin, et al., 2012).

There is no standard definition for the term *PMO* due to the difficulty in tailoring its various roles and functions into one fit-for-all organisations' usage (Desouza & Evaristo 2006; Salameh 2013). However, the Project Management Institute (PMI, 2004) has established one of the most commonly used descriptions for PMO: “an organisational body or entity assigned various responsibilities related to the centralised and coordinated management of those projects under its domain”. Still, this definition is very generic and does not capture the exact “responsibilities” that the PMO should take in order to manage projects, which makes standardising the role of the office across organisations very difficult—as explained in the next section.

## **1.8 Role(s) of PMO**

According to Milin, et al., (2012), the objective of the PMO rests in ensuring compliance with the project management policies, standards and methodologies. The Project Management Institute (PMI 2013, p. 11) views PMO role as “standardising the project-oriented governance processes and facilitating the sharing of resources, methodologies, tools and techniques”. The PMI (2004) views PMOs' as “variable”, ranging from only providing support to taking direct responsibility for project management.

Desouza and Evaristo (2006) segment the roles of PMOs into three levels: strategic, tactical and operational. At the strategic level, the PMO ensures project(s) alignment with the organisational strategy, as well as effective knowledge management sharing and transfer. At the tactical level, the PMO ensures integration between projects and generation of consistent quality (of products and services). At operational level, the PMO ensures

ongoing project evaluation, customer satisfaction monitoring and integration of knowledge and expertise.

To sum up, PMO's roles and responsibilities are inconstant in organisations, confirming Milin and others (2012) claim that the theory and practice still disagree on the basic roles and responsibilities of the PMO.

## **1.9 Types of PMOs**

As the roles of PMOs are different, so are the forms and types of PMOs that exist both in literature and in organisations, depending on the key activities and the level of PMO operation. These include “project support office”, “programme management office”, “project management office”, “portfolio management office” and “enterprise project office” (Rathore, 2010). The definition of each term relates to the PMO's level of maturity and status in the organisation (Ibrahim, 2013).

For example, a project management office is set for projects in order to ensure their successful delivery, while a programme management office is set on a programme level to ensure process adherence and identify project dependencies and coordination within the program. A portfolio management office is located at business level to ensure alignment to the enterprise business objectives. A project support office, as its name indicates, provides basic support and specialist services to project managers. An enterprise project office has a more holistic role incorporated in ensuring the greatest benefit realisation through investment governance and consultancy as well as advisory services (Rathore, 2010).



## 1.10 Project success

Success in general relates to gaining advantage, or achieving something. Success in project context however differs according to various perspectives. In defining project success, researchers have identified terms such as project success, project management success, project critical success factors (Fraz, et al 2016) and project success criteria (Morris and Pinto 2007). A careful study of project ‘success’ ends up being so complex.

Although most project managers consider the triple constraints or the triangle of time, scope and budget the key to project success (Hamid, et al., 2012), many researchers suggest that measuring project success using this triangle is not thorough enough to evaluate project realisation, and they have consequently introduced alternative and broader measures of determining project success.

Klakegg, et al., (2008) for example suggest measuring project success through meeting the objective of the project. Turner and Zolin, (2012) on the other hand suggest measuring project success through stakeholders who are considered the best judges on the project—especially the sponsor. Pinto and Mantel (1990, *in* Malach-Pines et. al., 2009) recognised three features of success: project implementation, perceived value, and client satisfaction. Moreover, Shenhar and Dvir (2007) suggest a model of success based on five dimensions, as illustrated in table (2). These dimensions constitute of the project constraints of schedule, budget (which are referred to as project efficiency), stakeholders’ considerations (including the project team and the customer), in addition to the benefits gained to the organisation when the project is fulfilled. The last dimension in Shenhar Dvir’s (2007)

model is the project's flexibility to adapt to new requirements and prepare the organisation for possible future needs.

Success Dimension	Measures
Project efficiency	Meeting schedule goal Meeting budget goal
Team satisfaction	Team morale Skill development Team member growth Team member retention
Impact on the customer	Meeting functional performance Meeting technical performance Fulfilling customer's needs Solving a customer's problem The customer is using the product Customer satisfaction
Business success	Commercial success Creating a large market share
Preparing for the future	Creating a new market Creating a new product line Developing a new technology

Table (2): The five dimensions of project success. Source: Shenhar and Dvir (2007).

To summarise, there is a definite uncertainty in regards to project success, despite the numerous studies around it. This might be due to the project success dependency on perceptions and viewpoints (Ika, 2009) or the assessors' evaluating it (Malach-Pines, 2009), or as Baker et. al., (1974) proclaims, the difficulty in finding an "absolute success" in project management.

### 1.11 Relationship between PMO and Project Success

According to many researchers, the establishment of a PMO in an organisation can facilitate project success (Salameh, 2014). Milin, et., al (2012), for example argue that establishing a PMO in an organisation can increase the effectiveness of project management through enabling knowledge gathering from previous projects therefore enhancing the usage of successful project management methods on ongoing projects. Maylor (2010) assert that the PMO should provide the tools and techniques that are necessary to improve the overall organisational performance through delivering successful projects. Moreover, Santos and Varajão (2015) believe that organisations that implement a PMO will gain numerous advantages in the long term. These advantages, as outlined in table (3) include increasing the likelihood of project success through adopting enhanced project activities, as well as enhancing transparency and quality outputs.

<b>Advantages of implementing a PMO</b>	
1	Proactive project risks/issues management
2	Clear evaluations in terms of time and budget
3	Enhanced effectiveness and efficiency in project management
4	Enhanced quality output(s)
5	Increased percentage of success of project activities
6	better coordination and control of tasks and resources
7	availability and circulation of information
8	creation of data-clearing house of information and project best-practices
9	implementation of project management competencies and know-how within the organization
10	increasing of transparency due to information sharing
11	increased predisposition to change and innovation

12	identification of synergies between activities and projects gaps fulfilment especially during feasibility analysis due to increased attention and awareness
13	Better definition of project priority and possibility of negotiations in order to manage urgencies
Table (3): Advantages of implementing a PMO. Source: Santos and Varajão (2015),	

According to Salameh's (2013) case study research, the organisation of research increased its project success rate from 13% to 26% due to the adoption of project management standards and procedures through implementing a Project Management Office. The PMI (2013) Pulse of the Professions survey reveals that project managers believe that PMOs help increase the success rate of projects and reduce the number of failed projects.

## 1.12 Problem Statement

To wrap up, it has become evident from literature and various examples that embracement of project management practices and PMOs is widely adopted worldwide. The challenge however, lays in the fact that several forms of PMOs exist with various roles, responsibilities and maturity levels. What is even more complicated is the fact that no standardised project success criteria could be found in literature, which makes establishment of a clear link between PMOs and project success and/or failure a challenge in itself.

There is substantial research that claims a direct correlation between PMO existence (within the organisation) and the successful delivery of projects (within the organisation), however a critical review of the literature does not actually articulate which precise attributes of PMO's contributes to specific elements of project success. These factors are likely to have a negative impact on the confidence of organisations to invest significant

resources in establishing PMO's. Thus, a number of researchers have identified the need to further investigate the PMO-specific role and contribution to organisational project performance (Ibrahim 2013). Abdel Fatah (2013) for example questions how PMOs add value to the organisations, as studies about the PMO's role in driving change to the organisation by helping it achieve its objectives and project success are very little.

### **1.13 Research Aim and Objectives**

For the purpose of this research paper, the author's aim lays in exploring how PMO's can effectively contribute to the successful delivery of projects in a project-based organisation in the UAE. The main objectives of the paper are:

- 1) To critically review the extant literature on 'PMO's' and 'project success' concepts and facilitate a clear understanding of their relationships.
- 2) To critically evaluate the roles and attributes of PMOs and their impact upon the successful delivery of projects (within the organisation).
- 3) To utilise empirical data to gain an understanding of the relationship between the roles and attributes of PMOs and their impact upon the successful delivery of projects (within the organisation).

In order to realise the three objectives, the author will try to answer the following three questions:

- RQ1: What do we mean by 'PMO's' and 'project success'?
- RQ2: What is the relationship between PMOs and project success?

- RQ3: What are the relationships between the attributes of PMOs and their impact upon the successful delivery of projects (within the organisation)?

To better serve its purpose, the research paper has structured in seven chapters as follows: Chapter 1 presents an introduction to the main concepts that are used in the research, and aims to answer the first research question. Chapter 2 reviews the literature available on the concepts and attempts to answer research questions 2 and 3. This will mainly cover the areas of project success and failure, PMO and its role in project success and/or failure. Chapter 3 provides the conceptual framework driven from the literature reviewed. Chapter 4 outlines the research design and methodology, and justifies the qualitative approach undertaken in the research. Chapter 5 presents research analysis and Chapter 6 presents discusses the main findings. Chapter 7 provides a summary and conclusion of the research, and explores future research areas based on the limitations identified in this research.

### **1.14 Research Map**

Table (4) summarises this study's research map—by outlining the problem statement, research aim, and problem, objectives, questions, and rationale and research structure.

Problem Statement	Research aim	Research objectives	Research questions	Underlying theories
There is substantial research that claims a direct correlation between PMO existence (within the organisation) and the successful delivery of projects (within the organisation), however a critical review of the literature does not actually articulate which precise attributes of PMO’s contributes to specific elements of project success. These factors are likely to have a negative impact on the confidence of organisations to invest significant resources in establishing PMO’s.	To examine how PMO’s can effectively contribute to the successful delivery of projects (within the organisation).	To critically review the extant literature on ‘PMO’s’ and ‘project success’ concepts and facilitate a clear understanding of their relationships.	RQ1: What do we mean by ‘PMO’s’ and ‘project success’?	PMO (project governance), Organisational project management and Project success theories
		To critically evaluate the roles and attributes of PMOs and their impact upon the successful delivery of projects (within the organisation).	RQ2: What is the relationship between PMOs and project success?	
		To utilise empirical data to gain an understanding of the relationship between the roles and attributes of PMOs and their impact upon the successful delivery of projects (within the organisation).	RQ3: What are the relationships between the attributes of PMOs and their impact upon the successful delivery of projects (within the organisation)?	
Table (4): Research Map				

## CHAPTER 2: LITERATURE REVIEW

### 2.1 Introduction

This section provides a review of existing literature on (i) project success and project failure (ii) PMOs (iii) The relationship between project success and PMO, and researchers' view of those concepts. All in all, it attempts to use the literature to answer the following research questions:

- RQ2: What is the relationship between PMOs and project success?
- RQ3: What are the relationships between the attributes of PMOs and their impact upon the successful delivery of projects (within the organisation)?

### 2.2 Project Success vs. Failure

Research on project success or failure is extensive. This is justified by various reasons. First, the vast failures of projects, supported by Wysocki and McGary's assertion that at least 70% of projects fail (2003). Second, the belief that identifying those factors can significantly improve project execution (Söderlund, 2011). Yet, there seems to be a real ambiguity over the definition of project success and/or failure, which justifies the different measures of success and the evolving nature of the topic.

#### 2.2.1 *Project Success*

Table (5) summaries a study conducted by Ika (2009) that shows how research on the topic of project success has evolved from the 1960s until the 21<sup>st</sup> century. The table illustrates



how the researchers' understanding of project success developed and matured, which in turn transformed the term's complexity and ambiguity (Laurie, et. al., 2012). During the first period between the 1960s—1980s, literature was primarily focused on the iron triangle of time, cost and quality as the criterion for project success. The second period (1980s—2000s) observed the introduction of additional success criteria, such as client satisfaction, end-user satisfaction, and benefits to the organisation and to the project personnel. The third period (21<sup>st</sup> Century) witnessed a shift from project management success to project/product success, introducing more success criteria like portfolio and programme success, in addition to additional narratives of success and failure.

<b>Research Focus</b>	<b>Period 1 1960s—1980s</b>	<b>Period 2 1980s—2000s</b>	<b>Period 3 21<sup>st</sup> Century</b>
Success Criteria	“Iron triangle” (Time, cost, quality)	<ul style="list-style-type: none"> <li>• Iron triangle</li> <li>• Client satisfaction</li> <li>• Benefits to organisation</li> <li>• End-user's satisfaction</li> <li>• Benefits to stakeholders</li> <li>• Benefits to project personnel</li> </ul>	<ul style="list-style-type: none"> <li>• Iron triangle</li> <li>• Strategic objectives of client and business success</li> <li>• End-user's satisfaction</li> <li>• Benefits to stakeholders</li> <li>• Benefits to project personnel and symbolic and rhetoric evaluations of success and failure</li> </ul>
Success factors	Anecdotic lists	CSF lists and framework	<ul style="list-style-type: none"> <li>• More inclusive CSF frameworks and symbolic and rhetoric success factors</li> </ul>
Emphasis	Project management success	Project/product success	<ul style="list-style-type: none"> <li>• Project/product, portfolio and programme success and narratives of success and failure</li> </ul>
Table (5): Measuring success across time. Source: Ika (2009)			

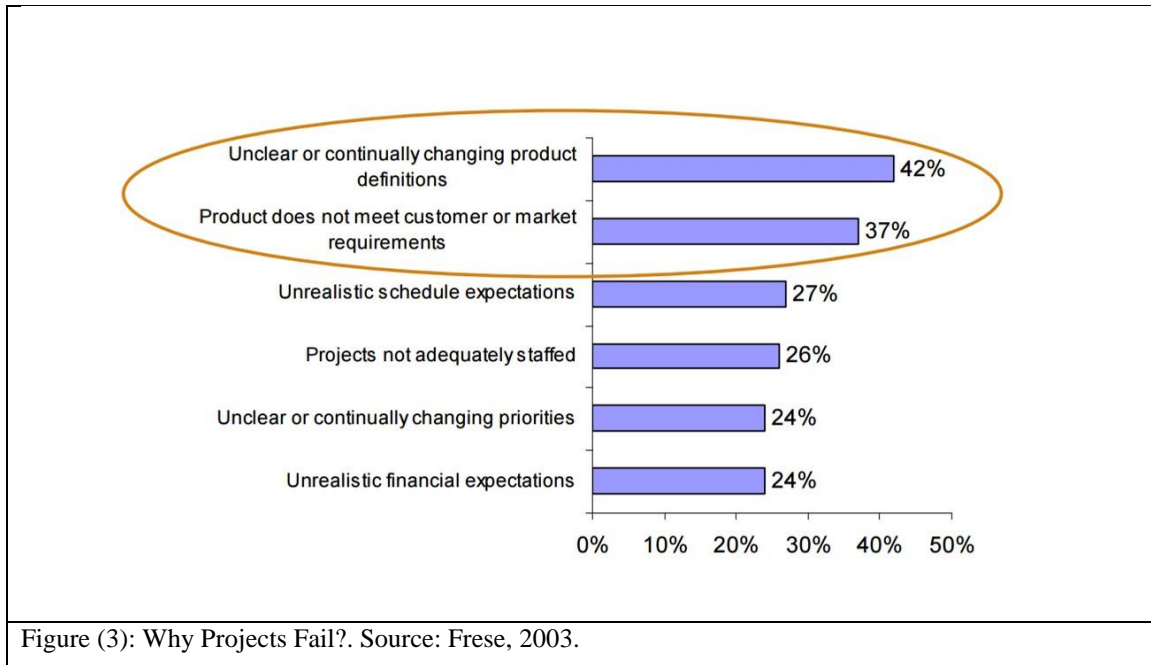
Researchers have realised that project success is multidimensional in nature (Ika 2009; Laurie, et. al., 2012) and include criteria that is beyond the project management process. Too and Weaver (2014) for example revealed that the success or failure of the project is beyond the control of the project manager or project team, as certain concerns require executive and other decisions.

Hjelmbrekke, et al., (2014) identified a gap between the project manager's conception of success and the top management's view of success. They see that the project manager seeks delivering the project within time, quality and scope, while the top management looks into realising the long-term benefits that set up the original incentive for introducing the project. This can be due to the success criteria differing at level of project, program and portfolio. Success at portfolio level for example, depends on: 1) average project success, 2) average product success, 3) the use of synergies, 4), strategic fit, 5) portfolio balance, 6) preparing for the future, 7) economic success (Teller, 2013).

Some researchers contribute project success to good governance, without referring to the PMO directly. Andersen (2012 in Hjelmbrekke, et al., 2014) for example associate project success to the effective PM governance structure, incorporated in close coordination between the project owner and project manager. Joslin & Müller (2016) as well assert that governance influences the effectiveness of project methodology and its impact on project success.

### ***2.2.2 Project Failure***

Like project success, many researchers have written about project failure. Field (1997) for instance, say that a project fails when the scope and project needs are not fully realised. This supports the study revealed by the IBM Software Group (2009) which lists the top two reasons for project failure as: (1) unclear or continually changing product definitions, and (2) products not meeting customer or market requirements. Figure (3) illustrates the other reasons identified by the group as unrealistic schedule expectations, inadequate staff, unclear changing priorities and unrealistic financial expectations.



Martin Cobb (1995, in Too & Weaver, 2014) associates project failure to organisational governance failure. Knodel (2004), on the other hand relates project failure to projects disconnection, silo management/misalignment or misgovernment. This also supports Hjelmbrekke, et al, (2016) research finding that projects fail when their output value is detached from the organisational strategy. Desouza and Evaristo (2006) identified a number of additional reasons behind project failure, such as poor knowledge management,

inconsistent management, ineffective formal tracking, and lack of stakeholder involvement.

Abbasi, et al., (2014) investigated three cases of projects that faced failure, in order to understand the key reasons behind those failures. Table (6) illustrates a summary of their findings, which clearly concludes that weak project management, unclear communication and unclear scope or objectives can affect project performance.

	Case One	Case Two	Case Three
Reasons for Failure	1) Extreme geographic location	1) Lack of in cultural change and cultural differences management	1) Lack of vision
	2) Weak risk management		2) Poor execution
	3) Lack of timely decisions		3) Criticisms
	4) Sluggish response in critical situation		4) Lack of sufficient operational expertise
	5) Undermining the situation		5) Poor marketing strategies
	6) Lack of planning		6) Financially mismanaged project
Table (6): Reasons for Project Failure in 3 cases. Source: Abbasi, et al., 2014			

Although researchers have identified the factors that contribute to project success as well as those that contribute to project failure, there is still a high percentage of project failures worldwide (Frese and Suater, 2003), which raises questions over whether the problem lays in controlling those factors or governing the overall management of projects.

### 2.3 Project Management Office (PMO)

Successful management of multiple projects require a proper project governance system. This governance system can ensure: 1) executive decision over project(s) approval; required support and resources; 2) proper oversight and assurance (Too & Weaver, 2014).

An effective PMO can fulfil the governance role by ensuring proper information reporting to the executive management that can support decision-making (Too & Weaver, 2014). According to Milin et. al., (2012) PMOs in project-oriented organisations can enhance effective project implementation, exploit a clear organisational and managerial structure and create a transparent system of responsibility.

Aubry, et al., (2012) describe the PMO as an “organisational innovation”, due to its instable and evolving nature. Desta et. al., (2006) support that by further explaining that PMOs can be created at different levels with different competencies in organisations. Even after its formation, the PMO undergoes continuous evolutions and maturities in parallel with organisational maturity level. The different terms used to refer to the Project Management Office (i.e., PO, PSO, PMO, EPMO, PMCoE, etc.) can be indicative of the PMOs level of maturity and position in the organisation (Ibrahim, 2013).

Literature on various PMO maturity models is extensive. The PMO competency continuum, illustrated in figure (4), is one of those models, created by Hill (2007) to describe the PMO evolution. This model outlines a sequence of evolutionary stages that a PMO takes in an organisation. Each PMO stage requires specific capabilities that should be accomplished and fulfilled in order to move to the next level. The same model demonstrates the organisation's PM maturity level, with the roles and responsibilities evolving from achieving project objectives and deliverables at the lower end of the competency continuum to realising strategic business goals at the highest competency stage.

STRATEGIC ALIGNMENT				
BUSINESS INTEGRATION				<u>Stage 5</u>
PROJECT SUPPORT			<u>Stage 4</u>	<b>Center of Excellence</b> <b>Manage</b> continuous improvement and cross-departmental collaboration to achieve strategic business goals
PROJECT CONTROL		<u>Stage 3</u>	<b>Advanced PMO</b>	
PROJECT OVERSIGHT	<u>Stage 2</u>	<b>Standard PMO</b>	Apply an integrated and comprehensive project management capability to achieve business objectives	
<u>Stage 1</u>	<b>Basic PMO</b>	Establish a capability and infrastructure to support and govern a cohesive project environment		
<b>Project Office</b> Achieve project deliverables and objectives for cost, schedule and resource utilisation	Provide a standard and repeatable PM methodology for use across all projects			

Figure (4): PMO competency continuum. Source: Hill, 2007.

In 2012, the Project Management Institute (PMI) conducted an exploratory research on PMO formation, management and operation. The findings of the report revealed little consensus around the types of PMOs and the functions of each type (PMI, 2013). The report identified the five types of: 1) Organisational Unit PMO; 2) Project Specific PMO; 3) Project Support PMO; 4) EPMO; and 5) Center of Excellence. Each type had its unique functions that serve its purpose. As described in table (7), the functions vary according to the PMO's position in the organisation. For example, the Organisation Unit PMO provides support and information within specific domains, while the Center of Excellence functions on an overall organisation-wide acting as a focal point to all project managers in the organisation.

#	Type of PMO	Functions Identified by PMI
1	Organisation Unit PMO	<ul style="list-style-type: none"><li>Supports the organisational unit strategy by providing PMO services-including but not limited to, portfolio management, governance, and operational project support-to a specific organisational unit.</li></ul>
		<ul style="list-style-type: none"><li>May provide appropriate information to other PMO entities as part of organisational governance and</li></ul>
		<ul style="list-style-type: none"><li>May be responsible for the consolidated reporting for the projects, programs and portfolios within its domain</li></ul>
2	Project-Specific PMO	<ul style="list-style-type: none"><li>Provide a range of project or program support services as a temporary entity established to support a specific project or program</li></ul>
		<ul style="list-style-type: none"><li>May coordinate with other PMO entities to support organisational governance requirements, provide project or program artefacts and facilitate knowledge management activities.</li></ul>
3	Project Support PMO	<ul style="list-style-type: none"><li>Provides enabling processes to support the management of project, program or portfolio work</li></ul>
		<ul style="list-style-type: none"><li>Utilises the governance, processes, practices and tools established by the organisation and provides administrative support for the delivery of the project, program or portfolio work within its domain</li></ul>
4	EPOM	<ul style="list-style-type: none"><li>Aligns project and program work to corporate strategy</li></ul>
		<ul style="list-style-type: none"><li>Establishes and ensures appropriate enterprise project, program and portfolio governance</li></ul>
		<ul style="list-style-type: none"><li>Perform portfolio management functions to ensure strategy alignment and benefit realisation</li></ul>
5	Center of Excellence	<ul style="list-style-type: none"><li>Equips the organisation with methodology, standards and tools to enable project managers to better deliver projects.</li></ul>
		<ul style="list-style-type: none"><li>Increases the capability of the organisation by implementing good practices and providing a central point of contact for project managers.</li></ul>

Table (7): Types of PMOs. Source: PMI, 2013

### 2.3.1 Evolved PMO

In 2015, Luca and Emmanuele (2015) introduced a new PMO model: the *evolved PMO*, during the PMI Global Congress. They exhibited that evolved PMO has resulted from the digital revolution and thus was inspired to develop new capabilities to sustain its

significance. In table (8), the authors compare the key capabilities of the evolved PMO with other PMO models. According to their classification, the evolved PMO is more innovative, IT-enabled, strategically aligned and flexible than the other forms of PMOs. It adapts the newest technologies in the market and the most flexible operating standards.

	Delivery Support	Strategic Planning	Center of Excellence	Digital/ Innovation	Alignment to Strategy	Agility
Traditional PMO	✖					
Modern PMO	✖	✖	✖			
PMO 2.0	✖	✖	✖	✖		
Evolved PMO	✖	✖	✖	✖	✖	✖
Table (8): Evolved PMO Capabilities. Source: Luca and Emmanuele (2015)						

## 2.4 Relationship between project success and PMOs

In 2001, Christine Dai of George Washington University published her PhD thesis on “the role of the PMO in achieving project success” (Dai, 2001). The research focused on three core questions: the impact of a PMO on reported project success; develop an index of functions and services observed in PMO practice; and whether having a PMO impacts on critical success factors (Dai, 2001). The research findings concluded that the impact of a PMO on project success were diverse, as organisations were found to experience both improved and decreased outcomes with the introduction of a PMO, so having a PMO is not a supportive factor in better project success, but some of the PMO functions can have impact on project success (Dai 2001).

Four years later, a study by Weaver (2005) concluded that organisations with mature PMOs have a project success rate of 98%, while organisations with newly established PMOs have



a project success rate of 53%. Similarly, organisations without PMOs at all have a project success rate of less than 50%. Another study by Jerbrant (2013) has also revealed that a PMO can enhance the number of successful projects in an organisation, as well as regulate the performance of its individual projects (Jerbrant, 2013).

Desouza and Evaristo (2006) revealed a study conducted jointly by the CIO Magazine and the Project Management Institute (PMI), which surveyed 450 managers. About 67% of those managers had a PMO in their organisations, and they concluded that the longer a PMO was in function, the higher was its influence on enhancing project success.

In 2013, KPMG conducted a project management survey across New Zealand, on which nearly 200 organisation responded. The study revealed that organisations with established PMOs have reported corporate benefits such as: 1) consistent application of risk management methodology across the project life cycle, 2) regular reporting of project time and cost variations, and 3) timely reporting of project progress. These benefits, according to KPMG (2013) have been strongly associated with project success.

From the previous paragraphs, one can observe that literature is rich in researches that describe PMO's roles and link them to project performance enhancement and success. However, solid empirical research to investigate PMO's functions and validate its positive impact on project performance is very little (Dai & Wells, 2004; Aubry, et.al. 2007). Dai and Wells (2004) are amongst the few researchers who performed such experimental studies, using the six functions and services of PMOs outlined in table (9) in a questionnaire format to characterise the PMO's presence related with a project outcome. Their study revealed that the enhancement of project performance can be attributed to: (1) PM

standards, policies and methods in the organisation, (2) project historical archive, and (3) pioneering in PMO establishment. The researchers could not find a direct link between the other three functions and project enhancement, and they suggested the use of case studies to complement the survey approach used in their study.

#	PM Functions and Services
1	Developing and maintaining PM standards and methods
2	Developing and maintain project historical archives
3	Providing project administrative support
4	Providing human resource / staffing assistance
5	Providing PM consulting and mentoring
6	Providing or arranging PM training
Table (9): PM Functions and Services. Source: Dai & Wells, 2004, pp. 525	

## 2.5 RTA: a case of a projectised organisation

The terms project-oriented, project-based, or projectised organisation are applied to those organisations whose projects or programs directly affect the strategic or business objectives (Aubry, et.al. 2007).

The Dubai Roads and Transport Authority (RTA) is a government entity in the emirate of Dubai, the second largest emirate of the United Arab Emirates. Established in the year 2005 as per decree number 17, RTA's vision incorporates "safe and smooth transport for all". Its roles and responsibilities include launching, managing, and operating a comprehensive transport system in Dubai that ensures the highest standards of services to satisfy the needs of all members of the society. Additional related roles incorporate licensing drivers and vehicles, developing integrated solutions for the road system and marine network (Law of Establishing Roads and Transport Authority, 2005).

Due to its substantial role in developing Dubai's infrastructure and transportation system, in addition to the constant pressure public sectors undergo to increase their efficiency while providing enhanced and integrated services (Santos and Varajão 2015), RTA is constantly involved in implementing enormous projects with limited budgets (PMPC 2014). This has pushed RTA to adopt project management practices at an early stage, as an effective method that should ensure alignment of its projects to the organisational goals and objectives, early identification of the risk factors that projects may encounter, and prioritisation of available projects (PMPC 2014). As illustrated in figure (5) on PM evolution in RTA, it was in 2009 when the basic concept of portfolio management was introduced in the organisation and adopted by the senior management—as a way to govern projects managed at agency and departmental levels. This step was followed by many other moves that contributed to the development of project management practices in RTA. For example, a project management policy was developed in 2010, followed a portfolio MoU in 2012. In 2014, the concept of benefit realisation was introduced in and the decision was made to automate the project management processes using the Organisational Project Management System (OPMS).

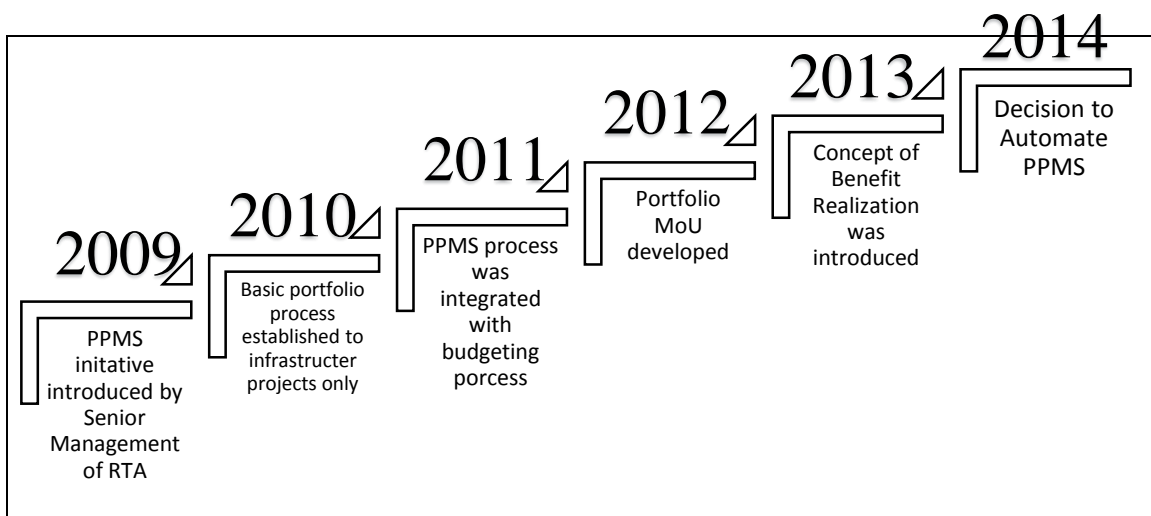
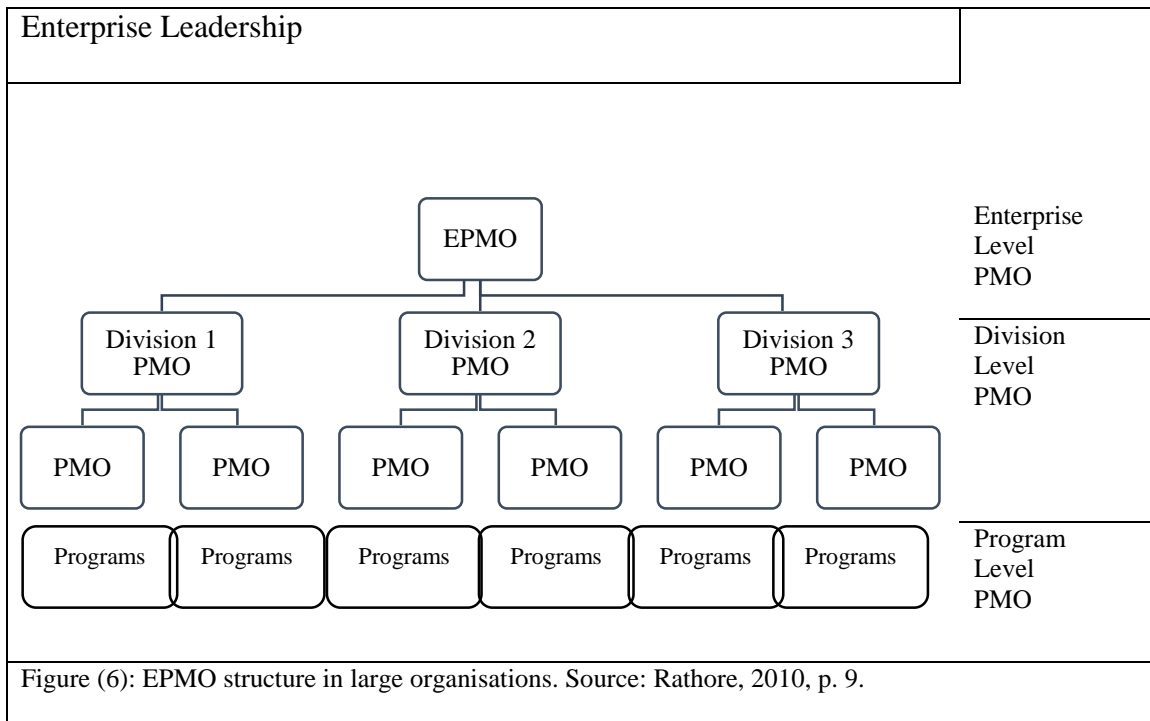


Figure (5): PM evolution in RTA. Source: PMPC, 2014.

Nowadays, RTA has a Project Management Community of Practice (PMCP), which acts as an internal community managed by the General Manager's Office with the aim of networking and knowledge sharing of project related practices. RTA's EPMO has issued the second version of its Project Management Policy in 2015, which provides a framework for implementing project management within the organisation. The policy assigns clear roles and responsibilities, outlines the PM framework and structure in the organisation, provides templates, references and other guidance on PM in RTA. RTA has fully functional organisational project management system (OPMS), which includes communication tools like a discussion platform and a survey tool, in addition to the main requirements of portfolio, project management policy and project teams. It is one of the main tools to track project progress in the organisation.

According to Rathore (2010), the EPMO is the most recent business function that acts as a "centralised business function which operates at strategic level with the enterprise executives and provides enterprise wide support on governance, project portfolio management practices, mentoring, tools and standardised processes", thus ensuring strategic alignment between business objectives and projects executed (Rathore, 2010, p.5). Figure (6) further illustrates Rathore's statement.



Some of the main functions of the EPMO identified by Rathore (2010) include: 1) value management, 2) strategy alignment, 3) mentoring and coaching, 4) resource management, 5) standardisation, and 6) collaboration among all PMOs.

The hierarchy of EPMO suggested by Rathore (2010) is the same that has been adopted by the RTA, with very similar functions. There is an Enterprise Portfolio Management Office (EPMO) at the higher, General Manager's office level, and Agency Project Management Offices (APMO)s at sectors and agencies level. Each APMO is responsible for following up the projects under their agency/sector through the assigned Departmental Project Management Offices (DPMOs) and Project Managers, and reporting to the EPMO.

## **CHAPTER 3: CONCEPTUAL FRAMEWORK**

### **3.1 Introduction**

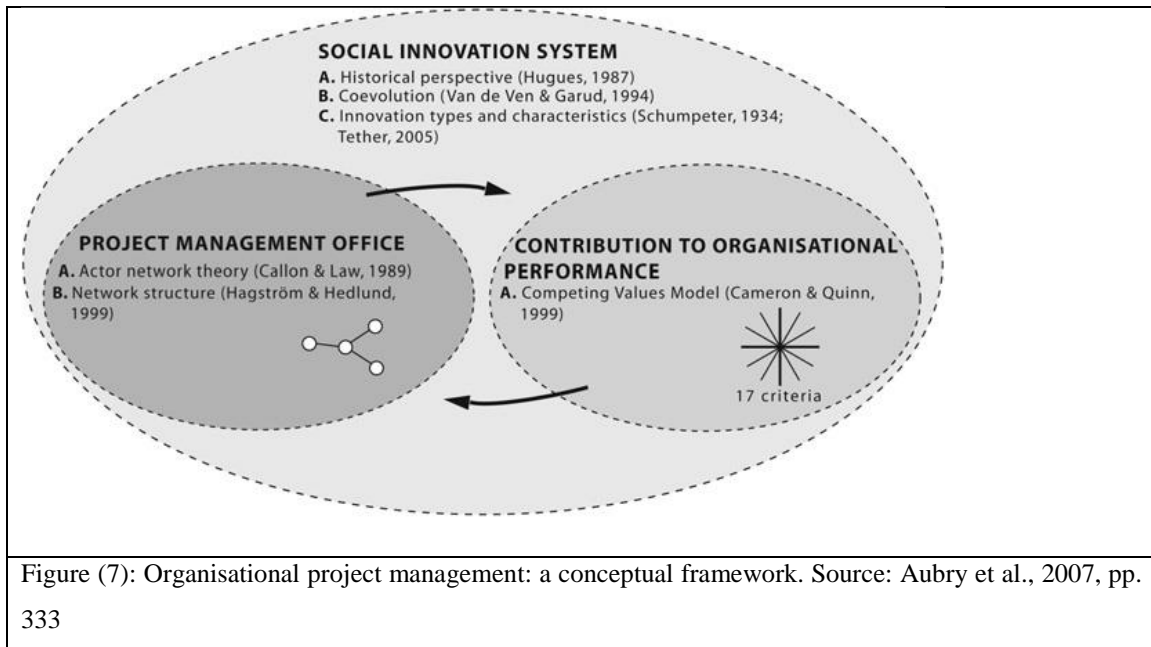
A conceptual framework is a structured way of linking the researcher's perceptions and views, setting the boundaries of the research study and guiding its flow (Gavin, 2016). Kumar (2011) considers it the "basis for the research problem", since it defines the features from the theoretical framework that the researcher has selected to become the foundation of his/her enquiry. This chapter provides an evaluation of three existing theoretical frameworks on project success and PMO establishment, using different measurements aspects and criteria. Using those frameworks, the researcher attempts to combine the most relevant ones in order to establish one final framework that will set the baseline for this research study.

### **3.2 Theories and Models**

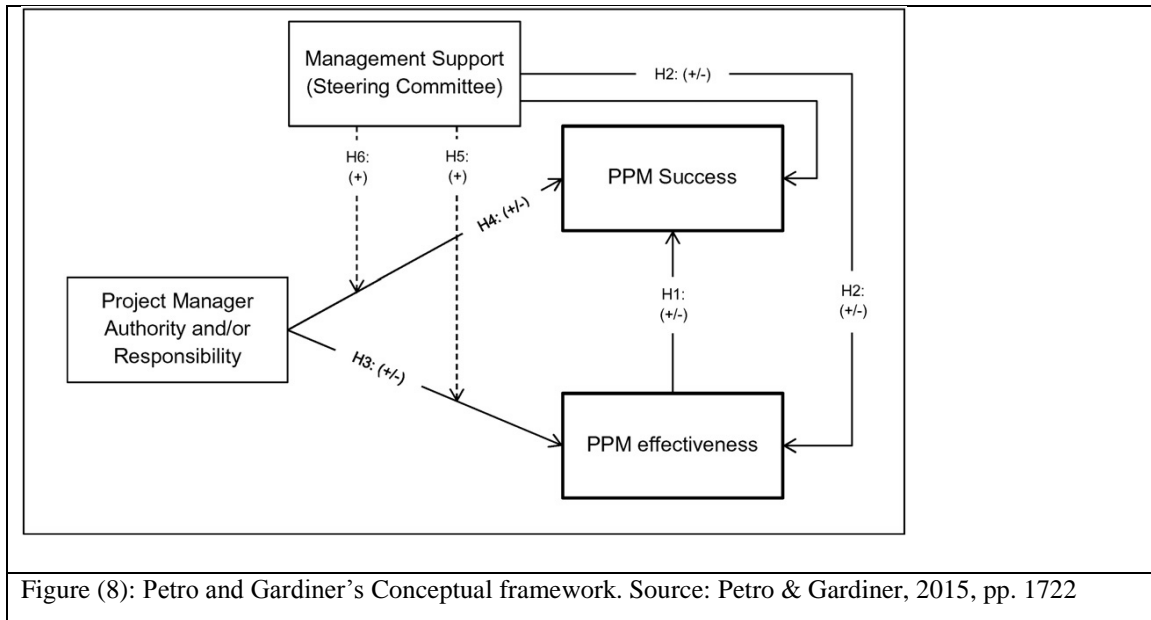
Researchers have developed various success factors and linked them to projects and organisational performance. Aubry, et al., (2007), Petro and Gardiner (2015) and Joslin and Muller (2016) are examples of those researchers.

In order to better understand the PMO and its contribution to organisational performance, Aubry, et al., (2007) proposed a conceptual framework on organisational project management through studying three theoretical fields, as illustrated in figure (7). According to the researchers, social innovation system is the first aspect that aims at giving a completely new vision of the PMO and lays the overall framework that allows for the

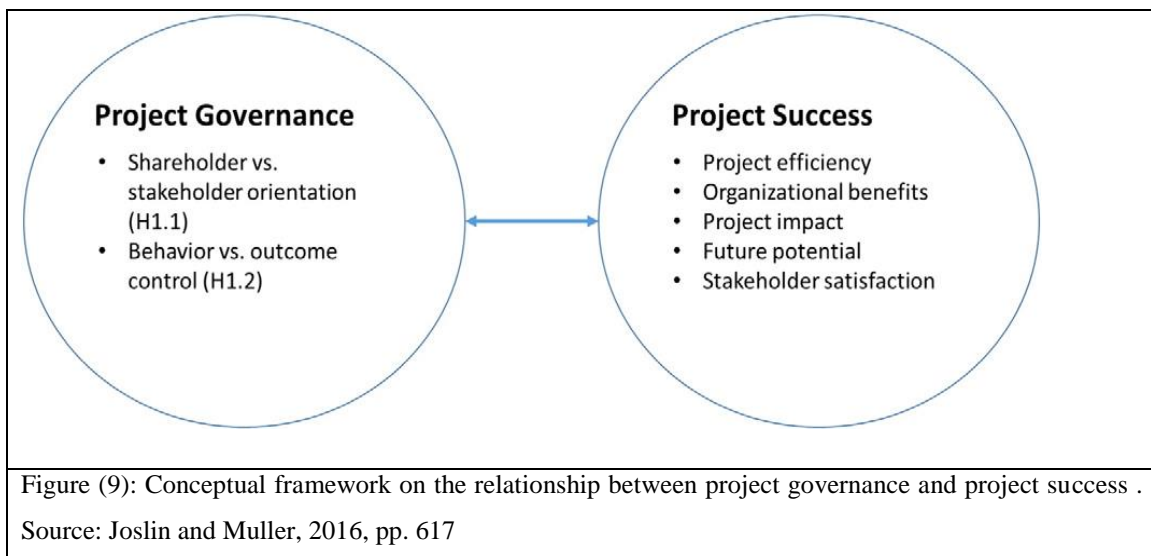
positive integration of the two other aspects.. The second aspect is the PMO's place in the conceptual framework, which helps expose the actual perception of the reality of the PMO. Organisational contribution to the PMO is the third field that the researchers suggest, believing that the PMO and its organisational contribution are "built up together" and thus should not be considered as dependant variables (Aubry, et al., 2007).



In their study to investigate the factors that affect PPM effectiveness and success in project-based organisations, Petro and Gardiner (2015) linked the PPM effectiveness and success to a number of factors, as illustrated in their conceptual framework in figure (8). The researchers lined PPM effectiveness to portfolio success. The researchers also contributed the presence of an effective steering committee or management support with considerable participation to PPM effectiveness and success. Additionally, the researchers linked the presence of a responsible and authorised project manager to PPM effectiveness and success.



Joslin and Muller (2016)b established a framework to study the relationship between project governance and project success. As illustrated in figure (9), they proposed that a stakeholder oriented governance and behaviour control in project governance positively enhance project success. They emphasise on the importance of educating project managers on organisational governance—through stakeholder orientation and organisational design courses in order to achieve project success.





### 3.3 Conceptual Framework

A key proposition in this study is that the PMO plays a vital role in enhancing project governance and overall success. Figure (9) illustrates the conceptual framework for this study, that emerged from the conceptual frameworks reviewed and studied in the previous section. Joslin and Muller's (2016)b proposition and link between governance and project success was adapted, in addition to Weaver (2005) and KPMG's (2013) studies which found a positive trend between a well-established PMO and project success.

By adopting Ika's (2009) success criteria of Period three, and combining the conceptual frameworks proposed by Joslin and Muller (2016)b and Petro and Gardiner (2015) on factors that contribute to project success, we will come up with the proposed framework illustrated in figure (10). Thus, we propose that a PMO that ensures: 1) management support, 2) project governance, 3) PPM effectiveness and 4) project manager authority, can ensure project success in terms of: 1) realising the iron triangle, 2) ensuring end-user satisfaction, 3) realising strategic objectives and 4) achieving benefits to stakeholders and personnel.

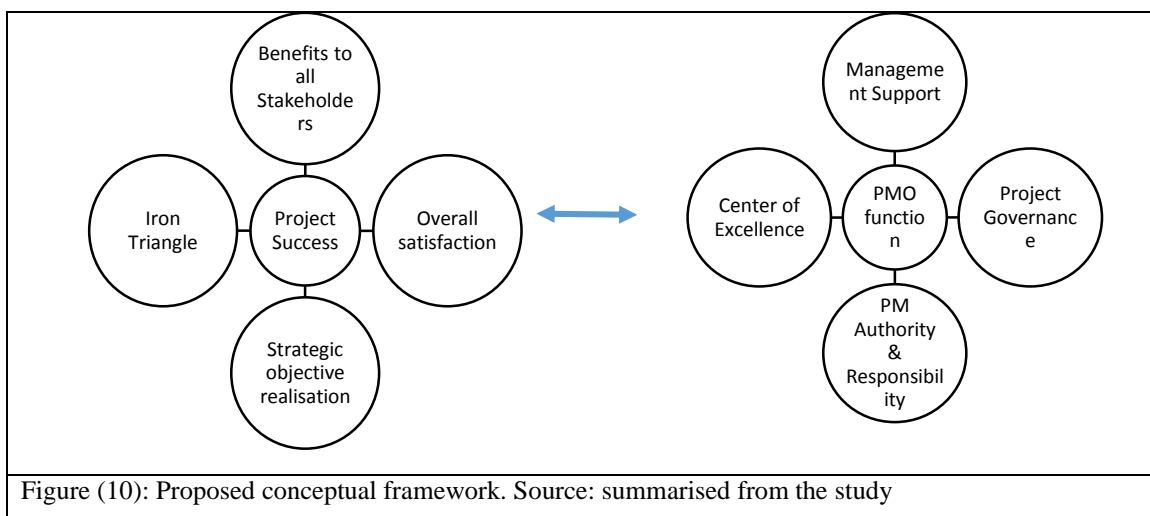


Figure (10): Proposed conceptual framework. Source: summarised from the study

## **CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY**

### **4.1 Introduction**

When undertaking a research, it is important to consider the different research philosophies and approaches available. The overall purpose of this chapter is to outline the research design, data collection and data analysis procedures that were used to address the formulated research question(s).

### **4.2 Research Approach**

Research methodology is “the systematic way to solve a problem” (Kothari, 2004, p.21). It involves collecting, analysing and interpreting various information in order to answer a question(s). Prabhat and Meenu Pandey (2015) identified various characteristics that are distinctive of research, such as: (1) it is directed towards solving a problem, (2) it requires expertise, (3) it is based on observable experience or empirical evidences, (4) it is carefully recorded and collected.

Research can be classified in different ways, based on the perspectives used, such as research application, research objectives, nature of information, inquiry mode, and others (Pandey and Pandey, 2015). On the basis of nature of information for example, research is classified into qualitative and quantitative.

Quantitative methods are research techniques that are used to collect measurable and calculable—i.e., quantitative data that is numerical and non-descriptive in nature, and its results are usually presented in graphs or table formats (Kothari, 2004; MacDonald and

Headlam, 2008). Examples of quantitative research include secondary data collection and analysis, statistical analysis,

Qualitative methods on the other hand are concerned with the evaluation of social dimensions and qualitative phenomenon (Kothari, 2004; MacDonald and Headlam, 2008).

Qualitative methods are naturalistic, non-numerical and interpretive (Jones, 1995), so their results are rich and detailed. Examples of qualitative research include questionnaire surveys, interviews and discussion groups. Table (10) further summarises the difference between qualitative and quantitative methods.

	<b>Quantitative</b>	<b>Qualitative</b>
Aim	Count things in an attempt to explain what is observed	Complete, detailed description of what is observed
Purpose	Generalisability, prediction, causal explanations	Contextualisation, interpretation, understanding perspectives
Tools	Surveys, to collect numerical data	Data gathering instruments
Data Collection	Structured	Unstructured
Output	Data is in the form of numbers and statistics	Data is in the form of words, pictures or objects
Sample	Usually a large number of cases representing the population of interest. Randomly selected respondents	Usually a small number of non-representative cases. Respondents selected on their experience
Objective / Subjective	Objective: seeks precise measurement and analysis	Subjective: individual's interpretation of events is important
Researcher Role	Researcher tends to remain objectively separated from the subject matter	Researcher tends to become subjectively immersed in the subject matter
Analysis	Statistical	Interpretive
Table (10): Difference between Qualitative and Quantitative Methods. Source: MacDonald and Headlam, 2008, pp. 9		

Although the two methods might seem impartial and competitive, researchers like Jones, R. (1995), regard qualitative and quantitative techniques as complementary. Using the example of studying an intervention or treatment, Jones (1995) comprehends that traditional quantitative methods such as randomised controlled trials can be used to test the effect of the intervention or treatment, but a qualitative exploration of beliefs and understandings is probably required to explore reasons behind not implementing the results of research in clinical practice.

This has caused the emergence of a third research method that incorporates using a mixed-technique in research—through triangulation. Yeasmin and Rahman (2012, p.156) define triangulation as a “process of verification that increases validity by incorporating several viewpoints and methods”. Although some researches see that qualitative and quantitative researches cannot be combined because they are based on opposed paradigms and philosophies, researchers who favour triangulation, like Perone & Tucker (2003) for example, assert that this method provides “confirmation and completeness” by minimising bias and enhancing validity through combining the advantages of quantitative and qualitative methods. Jick (1979) further explains the desirability of using triangulation amongst researchers who view the method as complementary and effective to enhance reliability of results and perform cross validation.

### **4.3 Research Method and Data Type Collected**

From the research methods explained earlier, and referring to MacDonald and Headlam’s (2008) distinction between qualitative and quantitative research methods outlined in table (10) as well as other researchers’ insights, the author of this paper chose to use a qualitative

method to conduct the research, for several reasons. First, the research is exploratory in nature and aims at gaining insight into the topic of discussion (i.e., PMO and its effect on the organisation) by improving understanding of the topic, its variables and the relationships between those different variables. Second, to achieve its aim the research requires insight of expert information (i.e., project managers and specialists), so the sample of respondents will be small and selective in nature and based on the respondents' experience and knowledge. According to Kumar (2011), qualitative research helps the researcher to describe variations in a phenomenon, and its emphasis is mainly on the variables of that occurrence, so it covers multiple issues using fewer respondents.

Quantitative research methods have not been used since the author's aim is not to explain or quantify an observation using precise measurements or calculation, nor to use a big sample of study, which are the characteristics of quantitative research methods (Kumar 2011, MacDonald and Headlam 2008).

#### **4.4 Data Collection Method**

As outlined in the beginning of this chapter, there are different qualitative approaches to collecting data, such as interviews, discussion groups and questionnaires. The author of this paper chose to conduct this research study using interview research, as studies show that this method is preferable over other qualitative methods when key positions—who are unlikely to take time to fill in questionnaires or attend discussion groups are involved (Rowley, 2012). Another vital consideration to choosing interviews over other methods incorporates time constraint, as the research needed to be conducted within a limited timeframe.

Many researchers regard interviews as one of the most significant and widely used qualitative research tool (Bryman and Cassell 2006), while some quantitative researchers question the validity of this research method and the data that it produces, considering it unreliable (Denzin and Lincoln, 2000, *cited in* Qu & Dumay 2011). According to Alvesson's (2003, *cited in* Qu & Dumay 2011), there are three main theoretical perceptions on research interviews. Those views are summarised in table (11) below. According to the researcher, the neopositivists, who study facts see that capable researchers can use interviews as an effective data collection tool in order to produce objective, context-free truth, with minimal bias. Romantics, who study meanings, are similar to the neopositivists in that they perceive interviews conducted by experienced and empathetic listeners as a knowledge transfer channel, which can transform interviewees' opinions, experiences and emotions into valuable source of knowledge. Localists, on the other hand criticise the purpose of using interviews as data collection instrument, treating interviews as social encounters, and thus calling for more exploration and understanding from different theoretical perspectives.

Position	Interview	Interviewer	Interviewee	Accounts
Neopositivism	As a tool for collecting data	As a capable researcher to trigger honest response	As a truth teller	As objective data and knowledge transfer
Romanticism	As a human encounter between the interviewer and the interviewee	As an empathetic listener to explore the inner world of the interviewee	As a participant to reveal real life experiences and complex social reality	As a pipeline of knowledge mirroring interior and exterior reality leading to in-depth shared understanding

Localism	As an empirical situation that can be studied	As people who are involved in the production of answers through complex interpersonal interaction	As people who are not reporting external events but producing situated accounts	As situated accounts that must be understood in their own social context
Table (11): Summary of the three perspectives on the interview method. Source: Qu & Dumay 2011, pp.241				

Interviews incorporate an interaction between the interviewer and interviewee with the objective of understanding the interviewee's opinion, behaviour or experience on a particular topic of interest. This interaction can be either face-to-face or via telephone or other technological channel (Kelley, K., et. al., 2003). Interviews can be structured, unstructured and semi-structured in nature, depending on the nature of the questions set and the responses required. The author of this paper used the most common type of the three; the semi-structured interviews (Rowley, 2012), which involves a set of prepared questions delivered to the interviewee in a systematic order guided by predetermined themes, with some flexibility to accommodate more elaborate responses from the interviewee (Rowley, 2012). The semi-structured interview is widely used due to its flexibility, accessibility and capability to disclose important aspects of human and organisational behaviour (Bryman and Cassell, 2006).

#### **4.5 Research and Data Collection Tools and Sampling**

To have a strong baseline and save time on preparing the research questions, Siniscalco and Auriat (2005) suggest that the researcher—while preparing his/her research questions—evaluates the required information and check if it can be found in already

recognised sources like government statistics, survey researches, archives or existing questionnaires. Conveniently, the author of this study evaluated various research papers and recognised some existing questionnaires which could be related to while building this research's questions. Those references are highlighted in table (11).

Since qualitative research is not bound to any rules regarding sample sizes, which is primarily dependant on the researcher's consideration and study purpose (Patton, 2002), the researcher still needs to ensure that the sample he/she chooses is representative of the larger population. Thus, the author of this paper chose professionals representing project managers (PMs), agency project management office (APMO) and department project management office (DPMO). The author of this study has also ensured that the sampling is appropriate and the participants represent the different sectors and agencies in the organisation of study.

As illustrated in table (11), the questions are classified into the following three parts:

- Part I questions are general questions set to obtain the demographic data of the respondents.
- Part II questions are set to understand the PMO's role/function in the organisation, and its overall contribution to the organisation. The questions are adapted from Desta, S., et al, (2006)'s and Alaray, N., (2016) studies.
- Part III questions are set to measure the project success status within the tested organisation, and understand the factors that contribute to this success — questions were partially adapted from Petro and Gardiner's (2015) and KPMG's (2013) studies.



Parts II and III are demonstrated in table (12) along with the questions, their sources and the link to the original research objective and question.

Research objective	Research question	Interview Questions	Source
To utilise empirical data to gain an understanding of the relationship between the roles and attributes of PMOs and their impact upon the successful delivery of projects within the organisation	RQ3: What are the relationships between the attributes of PMOs and their impact upon the successful delivery of projects within the organisation	<b>1) What direct role(s) does the PMO play in your organization?</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Develop methodologies, standards and templates for PM</li> <li><input type="checkbox"/> Monitor and control project performance, and centralise project reporting</li> <li><input type="checkbox"/> Allocate resources and coordinate between projects</li> <li><input type="checkbox"/> Execute specialised tasks for project managers</li> <li><input type="checkbox"/> Support in corporate strategic planning</li> <li><input type="checkbox"/> Conduct PM mentoring, training and education</li> <li><input type="checkbox"/> Manage one or more programmes</li> <li><input type="checkbox"/> Formalise project selection through project portfolio management</li> <li><input type="checkbox"/> Conduct benchmarking in best practices of PM</li> </ul>	Desta, et al, (2006)
		<b>2) In general, how would you rate the PMO's contribution to your organisation?</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> PMO improves the organisational design and performance</li> <li><input type="checkbox"/> PMO helps in productivity and skilfulness of the project team</li> <li><input type="checkbox"/> PMO improves profitability</li> <li><input type="checkbox"/> PMO creates external recognition for overall organisational performance</li> <li><input type="checkbox"/> PMO creates an overhead, expensive and unnecessary burden to the organisation</li> <li><input type="checkbox"/> PMO adds extra layer of bureaucracy that slow down business and consume resources</li> </ul>	Alaray, (2016)
		<b>3) How successful are the projects handled by your organisation?</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Most of the projects within my business unit/ department/ agency are completed on time</li> <li><input type="checkbox"/> Most of the projects within my business unit/ department/ agency are completed on budget without overruns and losses</li> </ul>	Petro and Gardiner, (2015)

		<div><div><div><input type="checkbox"/> Most of the projects within my business unit/ department/ agency prevent any scope creep from happening</div><div><input type="checkbox"/> Most of the projects within my business unit/ department/ agency achieve the intended organisational goals/objectives</div><div><input type="checkbox"/> Most of the projects within my business unit/ department/ agency achieve stakeholder benefits and satisfaction.</div></div></div>	
		<div><div><div><div>4) From the list below, what are the practices that your organisation has adopted that correlate to its project success?</div><div><div><input type="checkbox"/> Project managers use a well-defined project/project management methodology.</div><div><input type="checkbox"/> The organisation uses a project maturity model.</div><div><input type="checkbox"/> The organisation adopts and ensures appropriate enterprise project, program and portfolio governance</div><div><input type="checkbox"/> PMO provides a central point of contact for project managers and PM practices</div><div><input type="checkbox"/> Other (please mention)</div></div></div></div></div>	KPMG (2013)
		<div><div><div><div>5) What initiatives does your organisation have in place to improve risk management in projects?</div><div><div><input type="checkbox"/> Align project risk framework with organisational risk framework</div><div><input type="checkbox"/> Communication of the approval risk framework</div><div><input type="checkbox"/> Risk education</div><div><input type="checkbox"/> No initiatives currently underway</div><div><input type="checkbox"/> Other (specify)</div></div></div></div></div>	
		<div><div><div><div>6) Does your organisation have plans in place to assess your project management maturity model in the next two years?</div><div><div><div><input type="checkbox"/> Yes</div><div><input type="checkbox"/> No</div><div><input type="checkbox"/> Do not know</div></div></div></div></div></div>	

Table (12): Research Questions and References
---

KPMG  
(2013)

After arranging the interview questions, the author of this research sent an official email to 30 PMs, PMOs, DPMOs and APMOs in the organisation of study, calling for a voluntary research interview and explaining its purpose along with a confidentiality declaration assurance. Only ten professionals replied back showing their interest, and those candidates

were contacted for the interview arrangements. All ten interviews were conducted on face-to-face basis, either at the interviewee's or the interviewer's office, in accordance to good interview practice (Jepsen & Rodwell, 2008). Interviews commenced with formalities, reinforcing the research purpose, the nature and duration of the interview, the note-taking process, and the confidentiality assurance.

The six main questions were asked during all interviews, and the participants were encouraged to talk and reflect on the discussions. The average duration of the total interviews was half an hour. At the end, each interview concluded with a summary of the notes taken and clarification of any points of uncertainty.

## **CHAPTER 5: RESEARCH FINDINGS AND ANALYSIS**

### **5.1 Introduction**

This chapter outlines and investigates the findings of the research study. Participant's responses on the questionnaire distributed were categorised and elaborated to find out key issues and trends. The findings were then classified into sections: the first section outlining the respondents' background and the subsequent section presenting the responses and key issues identified.

### **5.2 Respondents' Background**

Overall, the respondents represented a useful sample of the targeted population, with diverse project management expertise. The detailed demographic information that demonstrates the respondents' backgrounds is summarised in figure (11).

As the graphs show, 80% of the participants were males, which is not surprising as many researchers have proved that project-based firms are generally male-dominant, primarily due to the differences between women and men leadership behaviours (Rodríguez et al., 2017). The ages of the respondents varied exceptionally, with the majority (60%) reporting to be between 31 – 35 years old, 20% being between 36 – 40 years old, and 10% being between 41 – 45 years old and between 25 –30 years.

Nevertheless, the author used three factors to weigh the credibility of the participants' responses: their educational background, experience and PM certifications. All the participants of this research were university degree holders, as half of them were holders

of a bachelor's degree and the other half were holders of a master's degree. Furthermore, most of the participants are well-experienced of the organisation, as 50% of them have a work experience of 5 – 10 years, 30% have work experience of above that. Only 20% of the respondents have work experience below 5 years. With 90% holding professional certifications in Project Management, the job titles of the participants ranged between project managers, agency project managers and department project managers, with the majority being senior project managers.

As revision of literature in Chapter 2 revealed about project success being multidimensional (Ika 2009; Laurie, et. al., 2012) and having different aspects and success criteria, it is worth noting that there are researchers who have considered project managers' capabilities as key factors to project success. Project managers' competencies (Liikamaa, 2015), managerial styles (Montequin, et al., 2015), as well as emotional intelligence skills (Obradovic et al., 2013) have all been studied to show the link to project success. All in all, an organisation that has competent project managers who are equipped with the necessary skills, resources and roles can undeniably ensure the success of its projects.

The results of the participants' education/certification, experiences and position in the organisation conclude that the majority of the organisation's project managers are equipped with the technical competencies required to manage projects. Furthermore, it is witnessed that that project managers in the organisation under study are allocated at different levels and have distinct roles according to their position in the organisation, which is evident in the titles they are provided. Considering Hill's PMO competency continuum (Hill, 2007) described in Chapter 2, those characteristics place this organisation at stage four of PMO

maturity level—which means that it has an advanced PMO that employs a combined and complete project management capability to achieve the desired goals and objectives.

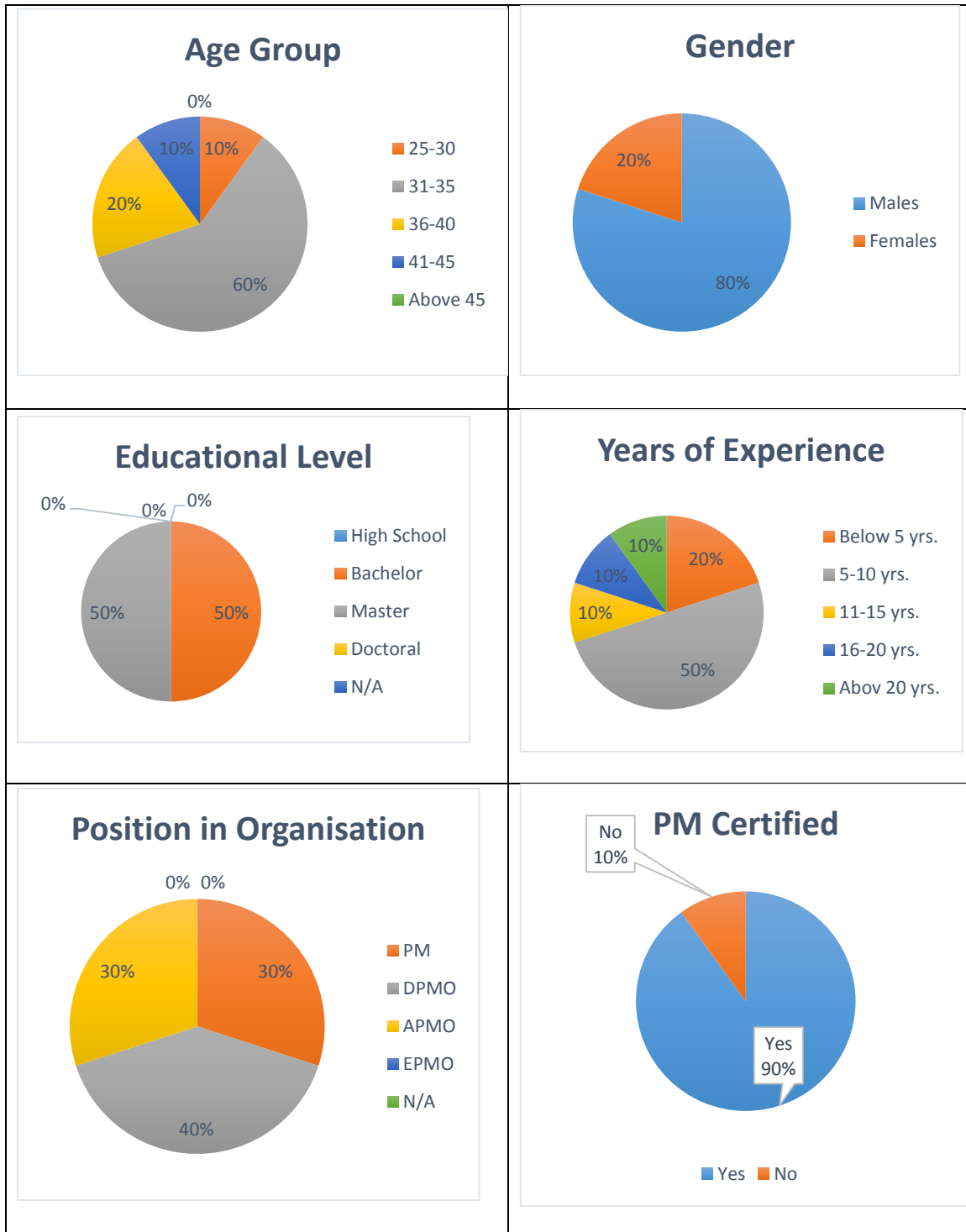


Figure (11): Respondents' Demographics.

## 5.3 PMO's Role & Project Success Perceptions

### 5.3.1 PMO's Role and Functions

Since literature has revealed various existing and evolving roles PMOs in organisations, and one of the key objectives in this study is to critically evaluate the roles and attributes of PMOs and their impact upon the successful delivery of projects (within the organisation), it was important to ask the participants about their PMO's main role(s) in their organisation in order to understand its main functions and position in the organisation under study, and hence perceive its maturity.

The answers to this question were interestingly variable, as 50% thought the key role was to support in corporate strategic planning, while 20% believed that it was to conduct benchmarking in best practices of PM, and 30% saw that it was to monitor and control project performance and centralise project reporting, as well as develop methodologies, standards and templates for project managers. The responses indicate that the PMO in the organisation under study has different roles and responsibilities. It also indicates that the PMO in this organisation is playing an active role in directing the project management practices in the organisation.

*One of the participants highlighted that the PMO in the organisation plays an important role in “joining and connecting PM efforts at all levels of the organisation”.*

When asked about how they rate the PMO's contribution to their organisation, 50% of the participants felt that the “PMO creates external recognition for overall organisational performance”, 20% thought it “improves the organisational design and performance” and

30% thought that the PMO “helps in productivity and skilfulness of the project team”. None of the participants believed that the “PMO creates an overhead, expensive and unnecessary burden to the organisation” or “adds extra layer of bureaucracy that slow down business and consume resources”. In analysing the results, it becomes evident that the PMO in the organisation under study has created a good image of itself both externally and internally.

*One of the participants pointed out that the organisation “has a number of professional through affiliations with international entities like the Project Management Institute and its trainings are recognised by the Institute”.*

Considering the participants’ profile as well as their responses, and comparing those findings with that of the literature reviewed, it becomes evident that the organisation under study has a noticeably mature PMO in place that plays a vital role both on strategic as well as functional levels.

### **5.3.2 Project Success**

In order to understand the success/failure ratio in the organisation and its project management professionals’ perception of project success, the participants were asked about how successful they believed are the projects handled in their organisation. 40% of the participants responded, “Most of the projects within my business unit/ department/ agency achieve stakeholder benefits and satisfaction”. Similarly, 40% responded that “Most of the projects within my business unit/ department/ agency achieve the intended organisational goals/objectives”. 30% of the participants saw that “Most of the projects



within my business unit/ department/ agency are completed on budget without overruns and losses”. The answers indicate that project managers’ perception of project success is variable, with some perceiving it beyond the triangle of time, budget and scope, and others still considering these constraints as success factors.

*One of the participants stressed that, “We always face this challenge of having to complete our projects within budget—although I see this as a limitation, I believe it is a success factors as well.”*

When asked to choose from a given list the practices that their organisation has adopted that correlate to its project success, 35% saw that the “organisation adopts and ensures appropriate enterprise project, program and portfolio governance”, and 32% believed that “PMO provides a central point of contact for project managers and PM practices”. The least chosen answers were “Project managers use a well-defined project/project management methodology.” and “the organisation uses a project maturity model”.

Reflection on sections 5.3.1 and 5.3.2 conclusions, implies a link between the maturity level of the organisation and the overall organisational project success. This greatly supports Weaver (2005), Desouza and Evaristo (2006) and KPMG’s (2013) studies, which suggest that mature and well-established PMOs greatly increase the success rate of projects in an organisation.

### **5.3.3 PMO’s Maturity Level**

The last two questions were asked to understand the maturity level of the PMO in the organisation, in order to understand its relationship to the project success/failure in the

organisation. When asked about the initiatives the organisation has in place in order to improve risk management in projects, most of the respondents (90%) related to the organisational enterprise project, program and portfolio governance.

*One of the participants stated that the organisation “has recently won a regional award in governance” and another stressed on the effectiveness of the “Enterprise Risk Management System, which is a great indication that risks are identified and managed successfully.”*

When asked about the project management maturity model, all the participants agreed that the organisation has a plan in place to assess its PM maturity model. This indicates the PM professionals’ awareness of the PMO practices and project management development.

*One of the participants declared that he has “not seen an organisation that takes its projects so seriously as (our) organisation, so this in itself is a good sign of maturity!”*

Overall, the results indicate that the organisation has adopted some good practices through its PMO, such as enterprise project, program and portfolio governance and acting as a central point of contact for project managers project management practices. This supports the author’s initial perception of the PMO in the organisation under study being at advanced level within Hill’s PMO Competency Continuum (Hill, 2007).

## **CHAPTER 6: DISCUSSION OF FINDINGS**

### **6.1 Background of Overall Aims**

The purpose of this research is to examine how effectively can PMO's contribute to the successful delivery of projects within the organisation, through realising certain objectives. One of those objectives incorporate utilising empirical data to gain an understanding of the relationship between the roles and attributes of PMOs and their impact upon the successful delivery of projects within the organisation. In achieving this objective, a qualitative research method has been used to gain further understanding and insight into the topic of discussion.

Thus, in addition to the literature review, a structured interview was conducted with ten professionals representing project managers (PMs) working at different levels within a project-oriented organisation, i.e., project level, agency project management office (APMO) and department project management office (DPMO). The questions focused on participants' knowledge and experience of the PMO's role in their organisation.

### **6.2 Relationship between PMO and Project Success**

Results of analysis indicate that the PMO in the organisation under study has diverse responsibilities, which according to literature is common due to the evolving nature of the PMO worldwide and the diverse role PMOs can play in organisations (Hill, 2007; PMI, 2013). This can be due to many factors like maturity level, organisational hierarchy and project managers' competencies.

The PMO in the organisation under study is perceived by its project management professionals to play a vital role in improving the organisational performance through ensuring enterprise project, program and portfolio governance, acting a central point of contact for project managers and PM practices. Furthermore, the PMO has achieved external recognition through affiliations and partnerships. All these factors have contributed to the high rate of success in the projects handled by the organisation, according to the participants' views.

The PMO's functions described earlier are very similar to the EPMO's functions described by Rathore (2010), who perceived EPMOs as advanced PMOs that operate at strategic level, providing governance and support to project portfolio management practices through mentoring, tools and standardised processes. This proves that the PMO in the organisation of study is highly advanced.

Furthermore, research participants' perception of project success indicate that the organisation handles its projects very well, achieving the desired goals and objectives, and stakeholder satisfaction. Thus, both empirical data and qualitative research signify a relationship between PMO and project success. So going back to the 2<sup>nd</sup> Research Question: "What is the relationship between PMOs and project success?", it becomes evident that there is a positive relationship between PMO maturity and project success. In other words, the more mature and well-established the organisational PMO, better chances of project success are achieved in the organisation.

As explained in the literature, the roles of PMOs depend on the level of PMO operation in the organisation—with some working as support offices, while others working on program,

portfolio or enterprise level (Rathore, 2010). Similarly, project success factors and measures differ according to the PMO's role and the perceptions of the evaluator. For example, some project managers perceive the triple constraints as a success measure (Hamid, et al., 2012) while others perceive meeting project objectives as a success measure (Klakegg et al., 2008). Alternatively, benefit realisation and stakeholder satisfaction are considered success measures at enterprise project management level (Turner and Zolin, 2012). Considering Rathore's (2010) levels of PMO, and linking each with the success measures identified by researchers, as well as participants' responses, brings about table (13).

PMO Level	Success Factors	Success Measures
Support/ Project	Competent Project Manager	<ul style="list-style-type: none"> <li>• Meeting Triple constraints</li> <li>• Meeting Project objectives</li> </ul>
Program / Portfolio	Competent Program Manager	<ul style="list-style-type: none"> <li>• Meeting Triple constraints</li> <li>• Alignment to the enterprise business objectives</li> </ul>
Enterprise	Effective Governance Mature EPMO	<ul style="list-style-type: none"> <li>• Benefit realisation</li> <li>• Meeting strategic objectives / strategic fit</li> <li>• Stakeholder satisfaction</li> </ul>
Table (13): Project Success at Different PMO Levels		

The table illustrates different attributes to project success, identified and measured at different levels: project, program/portfolio and enterprise. For example, PMOs that function at project level can achieve project success through employing competent project managers who can realise the iron triangle of time, budget and scope. Similarly, PMOs that function at program level can achieve program success through similar success factors as projects: competent program managers who can achieve the iron triangle, and ensure

program alignment to the enterprise business objectives. Project success on overall organisational level however require a PMO that is highly mature and functions on a portfolio level and is equipped with an effective governance system.

Thus, in order to answer the third Research Question: “What are the relationships between the attributes of PMOs and their impact upon the successful delivery of projects (within the organisation)?”, the author summarised the factors that have been highly valued from both empirical data and qualitative research and categorised them according to PMO and success level, as shown in table (13). The findings of the table have been drawn from the results of various studies on project success (Hjelmbrekke, et al., 2014; Teller, 2013; Joslin & Müller 2016), as well as the research participants’ responses. The outcome table can be used as a matrix to measure project success in an organisation and identify the different attribute that trigger it.

## **CHAPTER 7: CONCLUSION AND RECOMMENDATIONS**

### **7.1 Relevance of the Topic**

The traditional project management method was created to enhance full control over a particular project and ensure its success. This method however, is not suitable for a multiple projects environment, where the challenges and oversight techniques vary. That is why Project Management Office emerged, to manage high-level conflicts, resource prioritisation and strategy alignment.

The aim of this research is to explore the PMO's role in achieving project success in a project-oriented organisation in the UAE, through realising three objectives. The research objectives incorporated: 1) exploring the concepts of Project Management, Project Governance and Hierarchy, PMO, Governance, and Project Success, 2) exploring the relationship between PMO and Project Success, and 3) finding a positive relationship. The importance of this research comes from the limited research in this field that is relevant to the UAE setting.

A literature review was conducted to achieve the first two objectives. According to the literature review, there is a rise in project-driven organisations and a global embracement of project management practices and PMOs worldwide. This has been emphasised by several studies which relate PMO's establishment to project success and enhancement. The challenge however, lays in the fact that several forms of PMOs exist with various roles, responsibilities and maturity levels. There is no standardised definition for a PMO or its role in the organisation. What is even more complicated is the fact that no standardised

project success criteria could be found in literature either, which makes the establishment of a clear link between PMOs and project success and/or failure a challenge in itself.

Thus, to obtain more insight into the topic and achieve the third objective of this study, a qualitative research method has been used, through a structured interview of ten project management professionals within a project-driven organisation. The results of the research indicate that the PMO in the organisation under study has diverse responsibilities, and plays an active role in directing the project management practices in the organisation, creating a good image of itself both externally and internally, and contributing to the success of projects handled by the organisation. Thus, it becomes evident that the PMO with significant and well-defined roles can essentially ensure organisational project success in areas beyond the triangle of time, budget and scope.

The initial conceptual framework of this study, outlined in Chapter 3, proposes that a PMO can ensure project success through: realising the iron triangle, ensuring end-user satisfaction, realising strategic objectives and achieving stakeholder benefits only if it ensures: management support, project governance as well as PPM effectiveness and project management authority. Reflecting that to the findings from the literature as well as the interviews, the author proposes to define project success level according to the PMO level in the organisation, as summarised in table (13).

## **7.2 Overall Study Findings**

The findings of the research show that there is a positive relationship between the formation of a PMO and enhancement of project success—taking into consideration that the PMO



and its relevant governance structures are well established in the organisation. However, since there is no definite link between the roles of the PMO and project success, and in order to better understand this link and capture the relationship, the author suggests measuring success at different levels of the organisation depending on the PMO's role/level in it.

### **7.3 Recommendations and Areas for Future Research**

This research is exploratory and has a number of limitations that need to be addressed for future research. First, the study is based on a small sample size within one organisation; therefore, the results cannot be generalised. Furthermore, since only one research method has been used (structured interviews), future studies need to consider using other methodologies to enable in-depth investigation of the trends revealed. Although the findings of the current study can be used as a useful baseline to build on, it is recommended that future studies apply those findings to other types of projects in other cultural, industrial and organisational settings for further verification and endorsement.

## LIST OF REFERENCES

1. Abbasi, N., Wajid, I., Iqbal, Z., Zafar, F., (2014), "Project failure case studies and suggestion", *International Journal of Computer Applications*, 86 (6), pp. 34—39
2. Alaray, N., (2016), "A governance approach: exploring the PMO characteristics on project success and failure", MSc. Thesis, British University in Dubai, Dubai
3. APM (2016), "Project Governance. Association for Project Management [online] Available online through: <http://knowledge.apm.org.uk/bok/governance> [Accessed on 03 April 2016]
4. Andersen, E., Dysvik, A., and Vaagaasar, A., (2009),"Organizational rationality and project management", *International Journal of Managing Projects in Business*, 2 (4), pp. 479 – 498 [<http://dx.doi.org/10.1108/17538370910991106>]
5. Aubry, M., Hobbs, B., and Thuillier, D., (2007), "A new framework for understanding organisational project management through the PMO", *International Journal of Project Management*, 25(1), pp.328—336
6. Aubry, M., (2011),"The social reality of organisational project management at the interface between networks and hierarchy", *International Journal of Managing Projects in Business*, 4 (3) pp. 436—457
7. Aubry, M., Sicotte, H., Drouin, N., Vidot-Delerue, H., and Besner, C., (2012),"Organisational project management as a function within the organisation", *International Journal of Managing Projects in Business*, 5 (2) pp. 180—194
8. Baker, B., Murphy, D., and Fisher, D., (1974), Factors affecting project success. In D. I. Cleland and W. R. King (Eds.) *Project management handbook* (pp. 902—919). New York: Van Nostrand Reinhold.

9. Belout, A., and Cauvreau, C., (2004), “Factors influencing project success: the impact of human resource management”, *International Journal of Project Management*, 22 (1), pp.1—11
10. Bredillet, C., (2014), “Ethics in project management: some Aristotelian insights”, *Journal of Managing Projects in Business*, 7 (4), pp. 548 – 565
11. Bryman, A., and Cassell, C., (2006), "The researcher interview: a reflexive perspective", *Qualitative Research in Organizations and Management: An International Journal*, 1 (1), pp. 41 – 55
12. Clegg, S. and Courpasson, D. (2004), “Political Hybrids: Tocquevillean Views on Project Organizations”, *Oxford: Blackwell Publishing Ltd.*
13. Dai, C. X., (2001), “The role of the project management office in achieving project success”, Doctoral Dissertation, Washington D.C.: George Washington University.
14. Dai, C., and Wells, W., (2004), “An exploration of project management office features and their relationship to project performance”, *International Journal of Project Management*, 22(1), pp.523—532
15. Darling, E., and Witty, S., (2016), “The project management office: it’s just what it used to be”, *International Journal of Managing Projects in Business*, 9 (2), pp. 282—308
16. Desouza, K.C., and Evaristo, J.R. (2006) “Project management offices: A case of knowledge-based archetypes”, *International Journal of Information Management*, vol. (26), pp. 414-423.

17. Desta, S., Root, D. & Diederichs, C. (2006), “The practice of project management office (PMO) concept within the German architect, engineering, contractor (AEC) sector”, *Journal of Engineering, Design and Technology*, 4 (1), pp. 46—59
18. “Endeavour”, Webster Online Dictionary (2016), Available through: <https://www.merriam-webster.com> [Accessed 12 October 2016]
19. Eve, A., (2007), “Development of project management systems”, *Industrial and Commercial Training*, 39 (2), pp.85—90
20. Field, T., (1997) “When bad things happen to good projects”, *CIO magazine*, Oct 15, 1997, Vol. 11, 2; pg. 54, 6 pgs.
21. Fraz, A., Waris, A., Afzal, S., Jamil, M., Shah, S., and Sultana, S., (2016), “Effect of project management practices on project success in Make-to-Order manufacturing organisations”, *Indian Journal of Science and Technology*, 9 (201), pp.1—8
22. Frese, R., and Suater, V., (2003), “Project success and failure: what is success, what is failure and how can you improve your odds for success?” [online] available through; [<https://www.semanticscholar.org/>]
23. Gardiner, P., (2005), “Project Management—a strategic planning approach”, *Palgrave Macmillan*, New York.
24. Hamid, S., Ghafoor, H., Sha, T., (2012), “Work environment and its impact on triple constraints of project management”, *Information Management and Business Review*, 4 (10), pp.545—552
25. Hill, G., (2007), “The complete project management handbook”. *Auerbach Publications*

26. Hjelmbrekke, H., Lædre, O., and Lohne, J., (2014), "The need for a project governance body", *International Journal of Managing Projects in Business*, 7 (4) pp. 661—677
27. IBM (2009), "Establishing a Winning Approach for Outsourcing Projects Seminar" [online], available through; [[https://www-07.ibm.com/hk/e-business/events/archives/srm/pdf/Marketing\\_All\\_27Mar09.pdf](https://www-07.ibm.com/hk/e-business/events/archives/srm/pdf/Marketing_All_27Mar09.pdf)]
28. Ibrahim, A., (2013), "The project management office (PMO): Its role and contribution to governance and strategy in organisations", M.Sc. thesis, British University in Dubai, Dubai.
29. Ika, L., (2009), "Project success as a topic in project management journals", *Project Management Journal*, 40 (4), pp. 6—19
30. Jepsen, D. and Rodwell, J., (2008), "Convergent interviewing: a qualitative diagnostic technique for researchers", *Management Research News*, 31 (9), pp.650—658
31. Jerbrant, A., (2013), "Organising project-based companies", *International Journal of Managing Projects in Business*, 6 (2), pp.365—378
32. Jick, T. (1979), "Mixing qualitative and quantitative methods: triangulation in action", *Administrative Science Quarterly*, 24 (4), pp. 602—611
33. Jones, R. (1995), "Why do qualitative research?", *British Medical Journal*, 311(1), pp.2
34. Joslin, R. and Müller, R., (2016)a, "The impact of project methodologies on project success in different project environments", *International Journal of Managing Projects in Business*, 9 (2) pp. 364 –388
35. Joslin, R., and Muller, R. (2016)b, "The relationship between project governance and project success", *International Journal of Project Management*, 34 (1), pp.613—626

36. Kelley, K., Clark, B., Brown, V. and Sitzia, J. (2003), “Good practice in the conduct and reporting of survey research”, *International Journal for Quality in Health Care*, 15 (3), pp.261—266
37. Khalema, L., Waveren, C. and Chan, K. (2015) “The relationship between project management office maturity and organisational project management maturity: an empirical study of the South African government infrastructure departments”, *South African Journal of Industrial Engineering*, 26 (3), pp. 12—26
38. Killen, C. and Hunt, R. (2013), “Robust project portfolio management: capability evolution and maturity”, *International Journal of Managing Projects in Business*, 6 (1), pp.131—151
39. Klakegg, O., Williams, T., Magnussen, O., and Glasspool, H. (2008), *Project Management Journal*, 39 (1), S27–S42
40. Kothari, C. R., (2004) “Research Methodology: Methods and Techniques”, 2<sup>nd</sup> ed., New Delhi: New Age International Limited Publishers
41. Kumar, R., (2011), “Research Methodology: a step-by-step guide for beginners”, London, Sage Publications.
42. Law of Establishing Roads and Transport Authority, (2005), No.17, Dubai, Ruler of Dubai Court.
43. Liikamaa, K., (2015), Developing a project manager’s competencies: A collective view of the most important competencies, *Procedia Manufacturing*, 3 (1), pp. 681 – 687
44. Luca, G. and Emmanuele, M. (2015), “PMO evolution—from the origin to the future”, *proceedings from the PMI Global Congress 2015*, available online through <http://www.pmi.org/>

45. KPMG (2013), "Project management survey report", *KPMG International Cooperative*, New Zealand.
46. MacDonald, S., and Headlam, N. (2008), "Research Methods Handbook, Manchester", Center for Local Economic Strategies.
47. Madter, N., Bower, D., and Aritua, B., (2012), "Projects and personalities: a framework for individualising project management career development in the construction industry", *International Journal of Project Management*, 30 (1), pp.273—281
48. Malach-Pines, A., Dvir, D., and Sadeh, A., (2009), "Project manager-project (PM-P) fit and project success", *International Journal of Operations & Production Management*, 29 (3) pp. 268—291
49. Maylor, H. (2010). "Project Management". 4th ed. Harlow: Pearson Education
50. Milin, D., Moraca, S., Radakovic, N., Jasarevic, S., and Hadzistevic, M., (2012), "Analysis of the possibility for establishing project management office (PMO) in companies in Serbia", *International Journal for Quality Research*, 6 (3), pp. 213—219
51. Montequin, V.R., Nieto, A.G, Ortega, F., and Villanueva, J., (2015), Managerial style profiles of successful project managers: a survey, *Procedia Computer Science*, 64 (1), pp.55 – 62
52. Morris, P., and Pinto, J., (2007), "Project, program and portfolio management", *John Wiley and Sons*, New Jersey.
53. Mosaic Project Services, (2012), "Governance Systems & Management Systems", white paper

- 
54. Müller, R., Turner, R., Andersen, E., Shao, J., Kvalnes, Ø (2014), “Ethics, Trust, and Governance in Temporary Organizations”, *Project Management Journal*, 45 (4), pp. 39–54
55. Obradovic, V., Jovanovic, P., Petrovic, D., Mihic, M., and Mitrovic, Z., (2013), Project Managers’ Emotional Intelligence - A Ticket to Success, *Social and Behavioral Sciences* 74 (1), pp. 274 – 284
56. OECD, (2004), “OECD principles of corporate governance”, *OECD Publication Services*, Paris.
57. Pandey, P. and Pandey, M. (2015), “Research Methodologies: tools and techniques”, Buzau, Bridge Center
58. Patton, M.Q. (2002), “Qualitative research and Evaluation Methods”, Thousand Oaks, Sage Publications Inc.
59. Perone, J., and Tucker, L., (2003), “An exploration of triangulation of methodologies: quantitative and qualitative methodology fusion in an investigation of perceptions of transit safety”, Tampa, National Center for Transportation Research
60. Petro, Y., and Gardiner, P., (2015), “An investigation of the influence of organisational design on project portfolio success, effectiveness and business efficiency for project-based organisations”, *International Journal of Project Management*, 33 (1), pp.1717—1729
61. PMI (2004), “A guide to the project management body of knowledge (PMBOK Guide)”, 3<sup>rd</sup> ed., Newtown Square: Project Management Institute.



- 
62. PMI (2013), “PMO frameworks, PMI Pulse of the Profession” [online] Available through: [<http://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/pmo-frameworks.pdf>]
63. PMPC (2014), “Project Portfolio Management System in RTA”, [PowerPoint Presentation]. Dubai, RTA.
64. Qu, S. and Dumay, J., (2011), “The qualitative research interview”, *Qualitative Research in Accounting & Management*, 8 (3), pp.238—264
65. Rathore, A., (2010), “The growing importance of EPMO (Enterprise Project Management Office) in today’s organizations”. Wipro Technologies.
66. Roads and Transport Authority (2016), “About RTA” [online], available through: <http://www.rta.ae> [Accessed 01<sup>st</sup> August 2016]
67. Roads and Transport Authority (2015), “Project Management Policy”. Dubai, RTA
68. Roads and Transport Authority (2014), “Project Monitoring Manual”. Dubai, RTA.
69. Rodríguez, P., Montequín, V.R., Morán, H., and Arriba, L., (2017), Gender influence in project management: analysis of a case study based on master students, *Procedia Computer Science*, 121 (1), pp. 461—468
70. Rosenau, M.D. (1998), “Successful project management: a step by step approach with practical examples”, 3rd ed., John Wiley & Sons, New York, NY.
71. Rowley, J., (2012), “Conducting research interviews”, *Management Research Review*, 35 (3/4), pp.260—271
72. Salameh, H., (2014), “A framework to establish a project management office”, *European Journal of Business and Management*, 6 (9), pp.19—26

- 
73. Santos, V., and Varajão, J., (2015), “PMO as a key ingredient of public sector projects’ success – position paper”, *Procedia Computer Science* 64 (2015) 1190 – 1199
74. Siniscalco, M., and Auriat, N. (2005), “Questionnaire design”, *UNESCO International Institute for Educational Planning*, Paris.
75. Söderlund, J., (2011), “Pluralism in project management: navigating the crossroads of specialization and fragmentation”, *International Journal of Management Reviews*, 13 (1), pp. 153—176
76. Teller, J., (2013), “Portfolio Risk Management and its contribution to project portfolio success: an investigation of organization, process and culture”, *Project Management Journal*, 44 (2), pp.36—51
77. Too, E., and Weaver, P., (2014), “The management of project management: A conceptual framework for project governance”, *International Journal of Project Management*, 32 (8), pp. 1382—1394
78. Turner, R., and Zolin, R. (2012), “Forecasting success on large projects: developing reliable scales to predict multiple perspectives by multiple stakeholders over multiple time frames”, *Project Management Journal*, 43(5), 87–99.
79. Weaver, P. (2005). “Effective project governance: the tools for success”, *Project Management Institute of New Zealand Annual Conference*. Auckland. 13th-14th October. Mosaic Project Services.
80. Wysocki, R.K. and McGary, R. (2003), “Effective project management – Traditional adaptive”, *Extreme*, 3rd ed., Wiley Publishing, Indianapolis.
81. Yeasmin, S., and Rahman, K., (2012), “Triangulation research method as the tool of social science research”, *BUP Journal*, 1 (1), pp.154—163

## APPENDICES

### Appendix I: Sample Interview Responses

<b>Interview # 1 Q &amp; A</b>
<p><b>1) What direct role(s) does the PMO play in your organization?</b></p> <p>EPMO has various roles in the organisation. Of the list provided, I believe that the PMO:</p> <ul style="list-style-type: none"> <li>• Formalise project selection through project portfolio management</li> <li>• Conduct benchmarking in best practices of PM</li> <li>• Conduct PM mentoring, training and education</li> <li>• Support in corporate strategic planning</li> </ul>
<p><b>2) In general, how would you rate the PMO's contribution to your organisation?</b></p> <ul style="list-style-type: none"> <li>• PMO helps in productivity and skilfulness of the project team</li> <li>• PMO creates external recognition for overall organisational performance</li> </ul>
<p><b>3) How successful are the projects handled by your organisation?</b></p> <ul style="list-style-type: none"> <li>• Most of the projects within my business unit/ department/ agency are completed on time</li> <li>• Most of the projects within my business unit/ department/ agency prevent any scope creep from happening</li> <li>• Most of the projects within my business unit/ department/ agency achieve the intended organisational goals/objectives</li> </ul>
<p><b>4) From the list below, what are the practices that your organisation has adopted that correlate to its project success?</b></p> <ul style="list-style-type: none"> <li>• project managers use a well-defined project/project management methodology.</li> <li>• The organisation uses a project maturity model.</li> </ul>
<p><b>5) What initiatives does your organisation have in place to improve risk management in projects?</b></p> <ul style="list-style-type: none"> <li>• Align project risk framework with organisational risk framework</li> </ul>
<p><b>6) Does your organisation have plans in place to assess your project management maturity model in the next two years?</b></p> <p><input type="checkbox"/> Yes</p>

**Interview # 2 Q & A****1) What direct role(s) does the PMO play in your organization?**

- Develop methodologies, standards and templates for PM
- Monitor and control project performance, and centralise project reporting
- Support in corporate strategic planning
- Conduct PM mentoring, training and education
- Conduct benchmarking in best practices of PM

**2) In general, how would you rate the PMO's contribution to your organisation?**

- PMO helps in productivity and skilfulness of the project team

The continuous educational programs and trainings are just exceptional.

**3) How successful are the projects handled by your organisation?**

- Most of the projects within my business unit/ department/ agency are completed on time

We always face this challenge of having to complete our projects on time—although I see this as a limitation, I believe it is a success factors as well.

**4) From the list below, what are the practices that your organisation has adopted that correlate to its project success?**

- project managers use a well-defined project/project management methodology

**5) What initiatives does your organisation have in place to improve risk management in projects?**

- Communication of the approval risk framework
- Risk education

**6) Does your organisation have plans in place to assess your project management maturity model in the next two years?**

- Yes

I think so because I have not seen an organisation that takes its projects seriously as our organisation, so I believe this in itself is a sign of maturity!

<b>Interview # 3 Q &amp; A</b>
<p><b>1) What direct role(s) does the PMO play in your organization?</b></p> <ul style="list-style-type: none"> <li>• Develop methodologies, standards and templates for PM</li> <li>• Monitor and control project performance, and centralise project reporting</li> <li>• Support in corporate strategic planning</li> <li>• Conduct PM mentoring, training and education</li> <li>• Formalise project selection through project portfolio management</li> </ul>
<p><b>2) In general, how would you rate the PMO's contribution to your organisation?</b></p> <ul style="list-style-type: none"> <li>• PMO improves the organisational design and performance</li> <li>• PMO helps in productivity and skilfulness of the project team</li> </ul>
<p><b>3) How successful are the projects handled by your organisation?</b></p> <ul style="list-style-type: none"> <li>• Most of the projects within my business unit/ department/ agency achieve stakeholder benefits and satisfaction.</li> </ul> <p>We have a good reputation for achieving outstanding project and satisfying our stakeholders, which is the main success factor in our projects.</p>
<p><b>4) From the list below, what are the practices that your organisation has adopted that correlate to its project success?</b></p> <ul style="list-style-type: none"> <li>• project managers use a well-defined project/project management methodology.</li> <li>• The organisation uses a project maturity model.</li> </ul> <p>Both. I also like to add: employment and training of project managers and continuous monitoring and evaluation of their competencies against project performance.</p>
<p><b>5) What initiatives does your organisation have in place to improve risk management in projects?</b></p> <p>Risk management is performed at all levels from top to bottom level. At strategic level, sector and departmental. The project risk framework is aligned with the organisational risk framework, and the approved risk framework is communicated and monitored through the PMO system.</p>
<p><b>6) Does your organisation have plans in place to assess your project management maturity model in the next two years?</b></p> <p>Yes, I think it is already measuring the maturity level and it is at an advanced stage.</p>