Implementation of PMO in GCC

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Master in Project Management Program

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Statement of Submission

This is certify that Sundis Al Rawi ID No. **80035** have successfully completed the final project named as: **Implementation of PMO in Middle East**, at The British University in Dubai, United Arab Emirates, to fulfill the partial requirement of the degree of Master of Project Management**.**

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Sundis Al Rawi

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Abstract

The Middle East Economy is booming. Riding on high oil prices historically the region has accumulated billions of dollars in sovereign funds. These sovereign funds have become a source of unprecedented projects launched by Gulf States in order to emerge as 21st century super power.

Qatar is hosting 2020 Football World Cup and U.A.E. has some very ambitious plans for future in regards to Infrastructure. It is heartening to note that some very ambitious projects have been completed such as the tallest building in the world, largest mall in the world, Islands in the sea and much more in U.A.E. which shows the achievements of Project Management in the Middle East. However a detailed analysis has shown that many western project management approaches either fail or are customized according to the local needs in the gulf area.

It also shows that the Project Management Office (PMO) is still evolving and their role still being debated. The topic that was chosen for the research basis in this dissertation was 'Implementation of PMO in Middle East". In this regard, some multi national companies were approached and their Project Management issues were discussed. A detailed survey was carried out with questionnaires and interviews with the Project Managers, who were quite cooperative.

The local culture was also taken into consideration and local practices were also studied in this research. The challenges faced by PMO were highlighted and recorded and at the end recommendations are suggested to improve the overall environment in PMO's of Middle East.

It is hoped that this research shall go along way to help project managers setup PMOs in the Middle East and achieve the required maturity to handle massive projects coming up in the future.

الملخص

يتميز الشرق الأوسط بازدهار اقتصاده، حيث يلعب ارتفاع أسعار النفط دوراً رئيسياً لتراكم المليارات من الدولارات في الصناديق السيادية. حيث أصبحت هذه الصناديق السيادية مصدراً للمشاريع التي لم يسبق لها مثيل في دول الخليج جعلتها تبرز كقوة عظمى في القرن 21.

ستقوم دولة قطر باستضافة بطولة كأس العالم لكرة القدم لعام 2020. كما قامت دولة الإمارات العربية المتحدة بإعداد بعض الخطط المستقبلية الطموحة فيما يخص البنية التحتية. هذا بالإضافة إلى قيام دولة الإمارات بإنجاز بعض المشاريع الكبيرة مثل بناء أطول برج في العالم وبناء جزر في وسط الخليج العربي وتشييد العديد من مراكز التسوق الضخمة وغيرها من المشاريع المهمة، مما يدل على إنجازات إدارة المشاريع في الشرق الأوسط. ومع ذلك فقد أظهر تحليل مفصل من خلال عرض آراء العديد من الأدباء والمفكرين، أن اتباع النهج الغربي في إدارة المشاريع قد يسبب الفشل أوقد يتم تخصيصها وفقاً للاحتياجات المحلية في منطقة الخليج.

ومن جهة أخرى فقد تبين أيضاً من خلال التحليل أن تنفيذ مكتب إدارة المشاريع لا يزال ضمن التطوير والمناقشة. علماً بأن الموضوع الذي اختير لأساس البحث في هذه الأطروحة هو "تنفيذ مكتب إدارة المشاريع في دول مجلس التعاون". وفي هذا الصدد ،فقد تم عمل استبان ومقابلات شخصية حول هذا الموضوع مع مدراء المشاريع في المؤسسات الحكومية والمتعددة الجنسيات في دولة الإمارات العربية المتحدة.

لقد تم أخذ الثقافة والممارسات المحلية في عين الاعتبار. وفي النهاية تم تسليط الضوء على التحديات التي يواجهها مكتب إدارة المشاريع وبالتالي تم اقتراح بعض التوصيات فيما يخص نقاط التحسين في مكتب إدارة المشاريع في دول مجلس التعاون.

نأمل أن يكون هذا البحث مفيداً لمدراء مكتب إدارة المشاريع في دول مجلس التعاون لتحقيق النضج المطلوب للتعامل مع المشاريع الضخمة القادمة في المستقبل.

CHAPTER 1

INTRODUCTION

Introduction

1.1 Introduction

The first Chapter is an introductory chapter to give an insight of the dissertation. Its objective is to present the topic, highlighting the main problems outlining the study. At the initiation of the dissertation, a background of the topic is given, during which some of the issues have been discussed. Following this is a case study. The aims and objectives are listed to further elaborate the research topic. The assumptions and limitations are also written for the reader.

1.2 Background Information

The Project was undertaken on behalf of the degree completion of Master in Project Management degree. The following dissertation includes a thorough research on Project Management Office in Middle East.

The research on the topic had limited information available on it, as the field is passing through the evolutionary stages in Middle East now. In order to do primary research surveys were carried out of about 44 organizations. It was also complemented by in-depth interviews and analysis.

Project Managers were contacted in this regard who had taken out time from their busy schedule. The topic was discussed with them in detail and personal experiences were recorded. It was realized during the project that the project manger faced many difficulties and were looking for a study in this regard which is according to the local environment.

The challenges were identified and recommendations have been put forward in this dissertation. A specialized software Statistical Package Social Science (SPSS) was used in this regard. A semi strong relationship was found between awareness and implementation, a very significant relationship between awareness and maturity and a strong relationship between implementation and maturity.

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The secondary research included reference journals, articles, project management books, magazines, PMBOK from PMI and other related online material. This material was used with proper citation and reference.

1.3 Case Study

The world of business and non business organizations is no longer within the national boundaries. Globalization continues to evolve into a major influence in world and business economies. Global business growth implies growth in the requirements for effective global management, including project management.

Adler (1991) observed that most of the management models and theories in organizational and managerial domain were developed by American and other Western researchers. Similarly, project management theories—such as those described by Forsberg et al) are based on American, Researches and Experiences. From my experience and the experience of other managers in the Middle East, it is evident that Western project management theories are not easily adopted in the Middle East region.

This paper presents a review of present project management processes and illustrates the shortcomings between Western management and Middle East practices. For the purpose of my research, the industrialized Middle East is defined as the major oil-producing countries of the region, United Arab Emirates, Saudi Arabia, Qatar, Kuwait, Bahrain, and Oman, also known as the Gulf Cooperation Council (GCC) countries. Selected literature on international organizational behavior and socio-cultural issues provides some empirical measures for cultural comparisons. Interviews with Western expatriate managers and project managers provide examples on the present difficulties faced by project managers working in the Arab culture of the GCC countries. It is concluded with observations and recommendations on possible future usage of project management theories in the region.

1.4 The Challenges

Projects are subject to many laws in any country. It is necessary to follow all laws, rules and regulations in order to avoid mishap in future. Projects are successful if participants in the project work as a team. Thus projects without teamwork are bound for failure. In developed countries management circles, team building often involves cross-departmental and cross-cultural components. Laws in west require that the inclusion or exclusion of persons cannot be based on conditions such as race, color, creed, or gender. Such restrictions do not apply on Middle Eastern projects. In fact, it is often standard practice to form teams based solely on these criteria.

Based on above situation project management has some unique problems in the Middle East. Researched and printed studies on project management are almost nonexistent. Delays in project are a norm and over budget are accepted due to existence of large funds back up and easy money.

1.5 Research Proposal

This paper proposes to measure the level of awareness of project management in the Middle East, as well as delving deeper into the implementation of PMO in the Middle East and the related obstacles and challenges. The research proposes to identify common PMO practices in the Middle East. The paper applies plural methodology (qualitative and quantitative) which includes running a questionnaire, and interviewing project managers and their teams. The proposed method includes an analysis of an actual situation (ABC PMO implementation) which demonstrates the major challenges faced in the practical implementation of PMO in the Middle East.

1.6 Aim

The aim of the project is to study Project Management Office current practices in the gulf region and measure Project Management awareness level in the whole Middle East. In particular the research shall focus the United Arab Emirates infrastructure and Project Management Maturity level.

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1.6.1 Research Questions

The research aims to address the following questions:

- To identify the level of PM awareness in Middle East
- What are the current practices of PMO in Middle East?
- What are the key challenges when implementing PMO in Middle East?

1.6.2 Objectives

- To study the awareness of Project Management in Middle East
- To understand the Middle East Business Culture and its implications on PMO
- To examine the key challenges which are faced when implementing a successful PMO in Middle East
- To suggest useful recommendation in improving the Middle East PMO environment
- To collect data that will assist in understanding the practices used in implementing PMO

1.7 Research Limitations

This research had faced some limitations, which are mentioned briefly below:

1) The data collection was exclusively dependant on the project manger personal knowledge and a 360 degree appraisal of the data was not possible.

2) The selected sample was of medium size as access to Project Management Office was not granted by all organizations.

3) Information on Previous projects is almost non existent and very difficult to find. Media reports had to be relied upon to some extent.

4) The questionnaire had the subjective part which might have giv3en the liberty to the respondent to include his/her prejudice thus reducing the integrity of the survey.

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5) The respondents were quite sensitive to disclose information as they were working on sensitive government infrastructures and were afraid of prosecution in case of disclosure of confidential matters.

1.8 Outline of the Dissertation

The complete dissertation is divided into eight chapters. The chapters have a logical setting as the topic progress. The first chapter is on the dissertation itself, stating in detail the introduction of the topic, explanation of the subject with some background information with the help of a case study. The challenges faced during the research. The brief explanation of research topic, aims and objectives and the limitations encountered during the dissertations.

The second chapter "Introduction to PMO" discusses the Project Management Office and its applicability. It helps the reader to understand what Project Management Office is, its role, responsibilities and liabilities. It also gives an insight how the project management office coordinates and carries out its duties.

The third chapter "Middle East Business Cuture" is written to describe the Middle Eastern culture. The peculiarities and subtleties found in the local culture is discussed in great length. In order to understand the unique discrepancies fond in the project management practices in Middle East, it is necessary to know and understand the local culture.

The fourth chapter discusses the general concept of Project Management in Middle East. Although fast gaining popularity in the region it has a long way to go. As the citizens of the gulf country gain literacy they are bound to be more conscious about the significance of Project Management.

The fifth chapter is based on the primary research carried out on the main theme of dissertation "Implementation of PMO in Middle East". It list the procedure, processes and practices being followed in the middle east. This chapter highlights how mature is the PMO and how it is utilized for Project Management in this region.

The sixth chapter lists the challenges faced by project managers. How the situation is aggravated due some unique environment existing in the region. The challenges are listed along with their reason to exist.

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The seventh chapter elaborates on methodology used for research for the dissertation. The researcher's philosophy, approaches and strategies are listed and discussed in detail In. this chapter research tools along with their results are also explained. It also contains the case studies in order to emphasize and provide evidence on the findings.

The eighth chapter contains the recommendations and suggestions given after in depth analysis carried out through this dissertation. The recommendations have widely been discussed with the project mangers who endorsed them through their knowledge and experience. The chapter also contains the conclusion arrived at the end after the research.

CHAPTER 2

INTRODUCTION TO PMO

Introduction to PMO

2.1 Definition of PMO

A Project Management Office is defined by the Project Management Institute as "An organizational body or entity assigned various responsibilities related to the centralized and coordinated management of those projects under its domain" (PMI, 2004, p. 369).

Grey and Larson (2006) and Curlee (2008) define the Program Management Office as "A centralized unit within an organization or department that oversees and improves the management of projects" (p.561).

Dow and Taylor (2008) stated that a project management office is a formal organizational structure that supports all projects and project methodologies for the organization (Dow and Taylor, 2008). Kersner (2001) stated that the project management office is an organization which is developed to support the project manager to carry his/her duties.

2.2 Importance of PMO

Project Management Office (PMO) is meant to improve the capabilities of project management in an organization by offering tools, systems, standards, and relevant knowledge to execute projects effectively and efficiently (Anantatmula, 2010). According to Rad and Levin (2002), one of the major functions of the PMO both at project and enterprise level, is in knowledge management. PMO functions both at project and organizational levels emphasize communication, transparency, and integration of efforts to transform individual learning to organizational learning. Consulting, mentoring, training, setting standards, and serving as a clearinghouse are some of the communication efforts of the PMO. By providing visibility, ensuring consistency, and by setting standards, a PMO provides transparency to all the project managers and teams (Anantatmula, 2010).

Jane (2007) stated that "Building a successful PMO has structural components similar to any other construction project: a strong foundation and floor, solid structural supports, and a strong exterior are essential components of building your PMO." This is illustrated in the below figure:

Figure 2.1
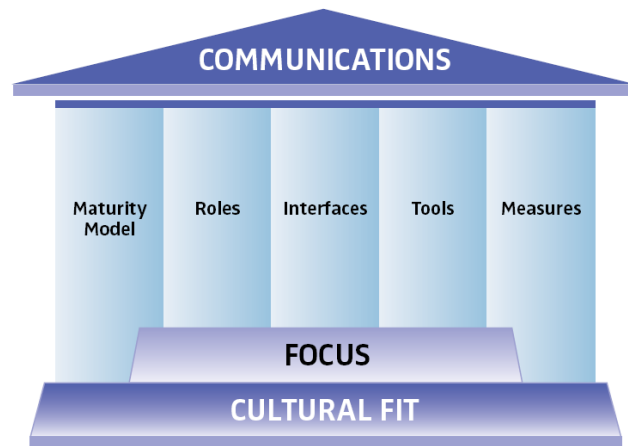
Kerzner (2003) cited in Hurt and Thomas (2009) has identified the importance of PMO functions groped into factors as summarized in below table:

Table 2.1

1. Monitoring and Controlling Project Performance	2. Development of Project Management Competencies and Methodologies	3. Multiproject Management
• Report project status to upper management • Monitor and control of project performance • Implement and operate a project information system • Develop and maintain a project scoreboard	• Develop and implement a standard methodology • Promote project management within organization • Develop competency of personnel, including training • Provide mentoring for project managers • Provide a set of tools without an effort to standardize	• Coordinate between projects • Identify, select, and prioritize new projects • Manage one or more portfolios • Manage one or more programs • Allocate resources between projects
4. Strategic Management • Provide advice to upper management • Participate in strategic planning • Benefits management • Network and environmental scanning	**5. Organization Learning** • Monitor and control performance of PMO • Manage archives of project documentation • Conduct postproject reviews • Conduct project audits • Implement and manage database of lessons learned • Implement and manage risk database	**Other Functions (Not in Any Group):** • Execute specialized tasks for project managers • Manage customer interfaces • Recruit, select, evaluate, and determine salaries for project managers

Table 2: Importance of 27 PMO functions grouped into factors ($n = 500$, Hobbs & Aubry [2007, pp. 82–83]).

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According to Santosus (2007), PMOs are of value because they "provide the structure needed to both standardize project management practices and to facilitate project management, as well as determine methodologies for repeatable processes". Santosus (2007) details a recent survey conducted by analysts at CIO.com and the Project Management Institute in which 450 organizations were polled for their use of the PMO function. 67% of the respondents did use a PMO and half of those stated that their project success rates had improved. In the final analysis of the survey, the top two reasons reported for having a PMO were as follow:

(1) Increased project success rates

(2) The implementation of standardized practices.

Cutting (2009) has proposed 12 signs are needed to implement a PMO and they are as following:

1. There is a leader but no one is following
2. Meetings are chaotic and unproductive
3. Scope is creeping
4. Objectives are not being met
5. project team is pinned down and taking casualties
6. Missions are aborted
7. Accountability is assigned, not grasped
8. Reason has been overrun
9. Everything changes every time
10. The business views you as the enemy
11. You are frustrated
12. Confusion reigns

2.3 PMO Mission

The mission of the PMO might be defined in a number of ways, depending on the needs of the organization. However, there are several common goals. As described by Dave Beal, Director of IT for the Comcast Oregon Market, the mission of the PMO, by any
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definition, is to align the various business groups within the enterprise to each other, and to any other PMOs within the organization, so as to ensure that all teams are working from one plan (personal communication, Nov 6th, 2007).

According to a Microsoft Whitepaper (2005), it is the mission of the PMO to recognize that not all projects are equal in value (to the organization) and to align the proposed project costs with the strategic objectives of the company. And Santosus (2003) quotes Curtis Cook, CEO of Novations Project Management as stating that, regardless of size and structure, the PMO serves the parent organization via project support and methodology with the goal of enabling better resource management and enhanced project success rates. Also the primary PMO mission is to provide the tools associated with developing command and control processes and to aid in establishing the consistent practices for the management of themultiple project efforts (Johnson, et al., 2002).

2.4 Project Management Communication

Dow and Taylor (2008) stated that the project management office (PMO) is important in the role of project communication. Also, Kersner (2001) stated the major responsibility of the project manager and PMO is the integration of work across the functional lines of the organization as explained in figure no. 1. Also Kersner (2001) stated that the lack of proper integration of work across these functional units is the most common cause of project failure.
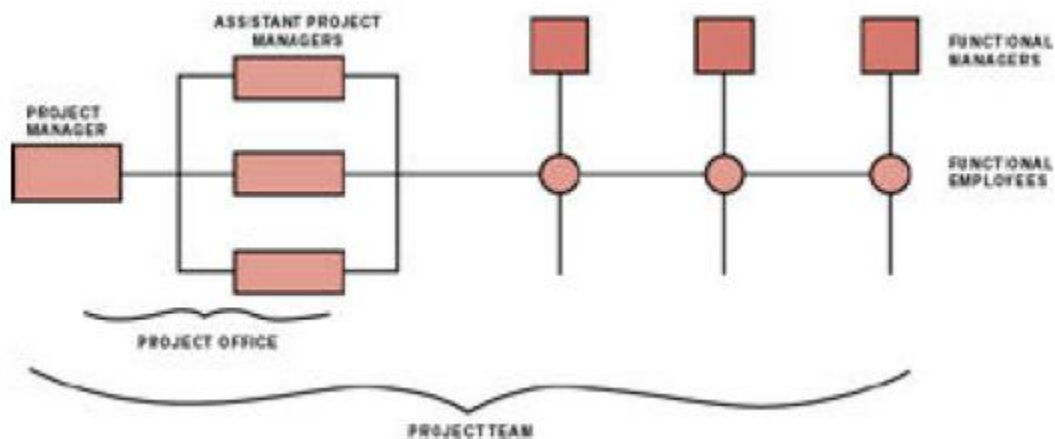
Figure no. (2.2). Project team and PMO. Source: Kersner (2001)

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Moreover, Tinnirello (2002) indicated that the exposure of a PMO to multiple projects places it in a good position to both manage communication among projects, and between projects and other parts of the organization. Also he stated that the communication can be mediated either by direct communication such as by providing newsletters and presentations, or indirectly by providing access to project repositories such as shared directories or intranet sites. In these cases, a PMO has the potential to provide a summarized and focused overview of projects as explained in figure below:
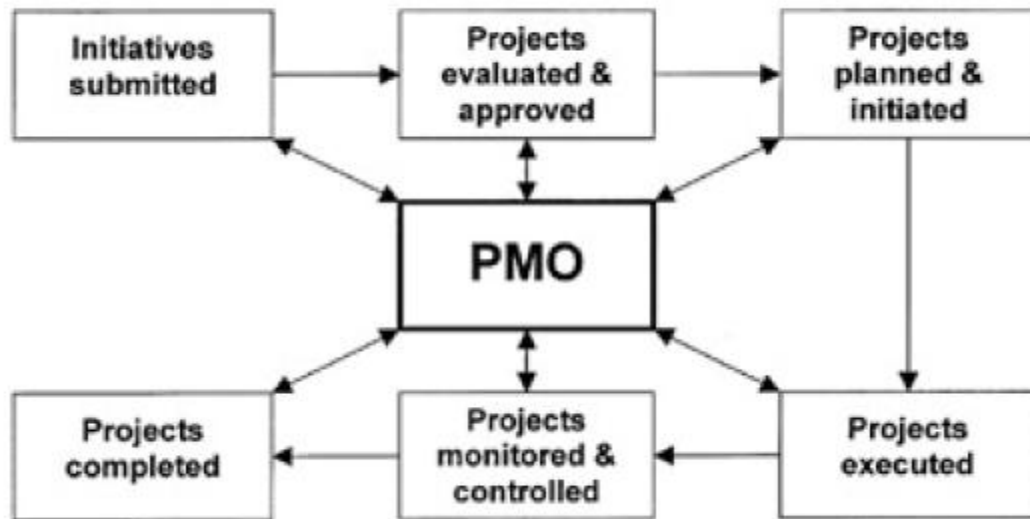
Figure no. 2.3. The central role for the PMO makes it more effective in the organization. Source: Tinnirello (2002)

The communication in a project environment refers to the exchange or sharing of message and information to transfer knowledge and ideas between and among the project manager, internal stakeholders and external stakeholders (Vijay, 1996). Mathieu and Zadjac's (1990, cited in De Ridder 2004) showed that the communication have a fairly strong effect on commitment. Further to operation success, Aukner (1967) found that, within recent years the management realized that communication is one of its most powerful resources for operating success. Citera (1998) stated that frequency of communication during both the planning and writing stages of the project was related to physical proximity. When problems appear, the communication has a big role in solving those problems as Glaser (1994) stated that, Commitment to communication and

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teamwork appeared to dominate when potential problems emerged. Bucero (2002) found that, the PMO project, like other projects, was uncertain by nature and according to this; changes, conflicts and problems might happen at any time in the project life cycle. However, with open communications, and good teamwork changes could be managed in a systematic and rational manner. In addition, Hobbs & Monique (2007) found that the most frequently used communications tools (to understand how managers communicate) is consider as one of the key indicators to measure success of PMO implementation. Not to mention that the Lack of cross-functional communication is a major challenge to the practice of PMO (William and Parr, 2006; Bartlett, 2002; CCTA, 1995). Moreover, there is a strong relationship between communication and teamwork performance and the productivity as Lioyed (2004) had said "if you ask people what the biggest people problem is at work, they are likely to agree with one voice, "Communication!" Communication problems are at the heart of many workplace problems and the end result is a loss of trust, teamwork, and productivity". Not to mention that, when employees communicate, that will enhance collaboration and information sharing which will allow them solve problems and exchange know how (Malone and Rockart 1991, Miles and Snow 1986, Nickerson 1992, Sproull and Kiesler 1991, Walton 1989 cited in Hinds and Kiesler,1995).

From above it's clear that the communication has a great affect on the PMO performance which may affect its successful and according to this, Patanakul and Milosevic (2009) found that with multiple projects to work on simultaneously, having the culture that supports communication is also significant. With clear communication channels, the project teams can share knowledge and experience across projects. In addition, multiple-project managers can use these channels to communicate project objectives to the teams in order to engage them in project activities. On the other hand, Cooper (2007) cited in (Rosenberg, 2007) said '' I have been struggling with this exact problem as the director of a project management office (PMO) in an IT organization committed to providing excellent value to the business units of the Massachusetts Medical Society''. Also he said "what we have here is a failure to communicate — a failure that is so deep-seated that neither side even realizes exactly what is going wrong''. Desouza and Evaristo (2006) While empower the PMO with greater responsibility and authority, it should not do so at the expense of teamwork and communication. Also, Maritato et al (2008) found that the

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improper communications at enterprise level of PMO initiatives are considered the most important factors for the failure of a PMO organization as explained in below figure:
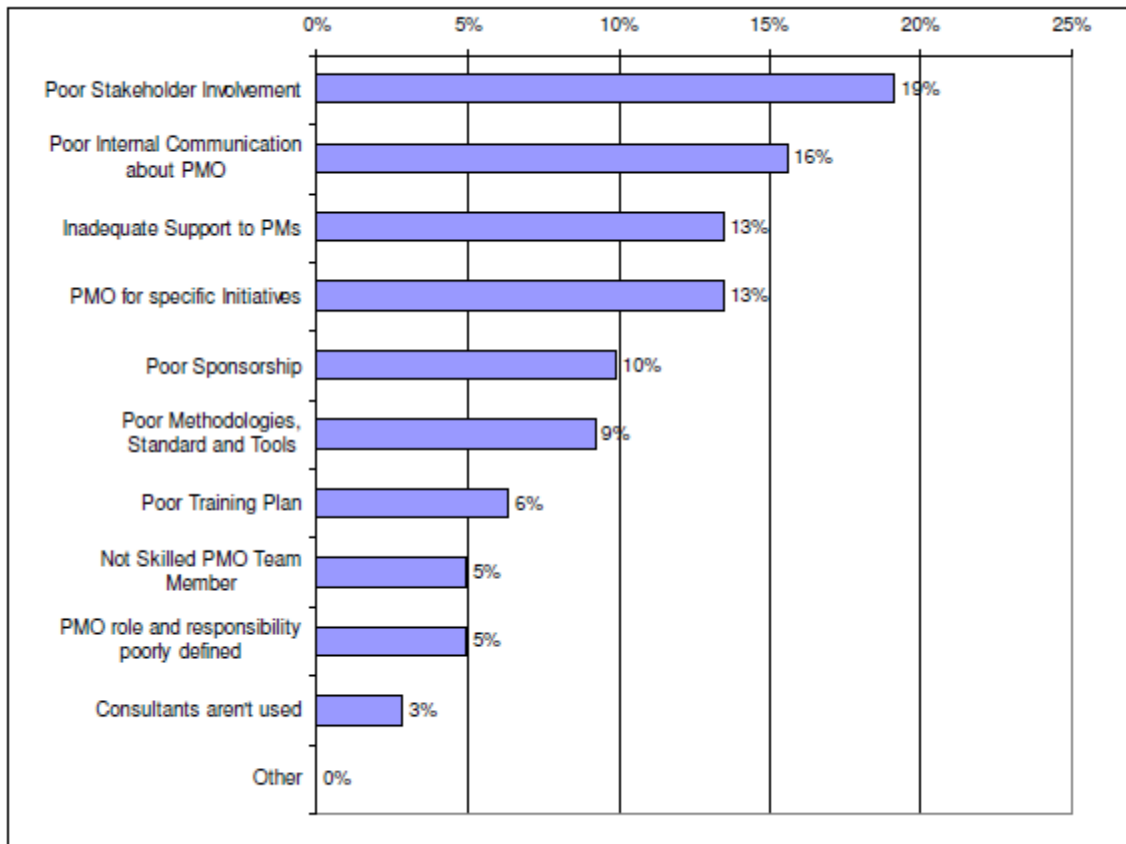
Figure no. 2.4. The critical factors that determined the failure of the PMO. Source: Maritato et al (2008)

CHAPTER 3

MIDDLE EAST BUSINESS CULTURE

3.1 Middle East Culture

The Europe, Middle East, and Africa (EMEA) is a study in contrast – in language, culture and even project management. Some countries have longed embraced the profession, whole other see it fast taking hold. The Project Management is highly influenced by local traditions, customs, and culture in Middle East. Thus in this chapter we discuss the Middle Eastern culture in order to understand the challenges faced by project managers and how can they be solved.

3.2 Hofstede Study

Since culture affects the ability to manage, it is reasonable to assume that culture also affects the organizations in which management is occurring. Adler (1991) makes considerable reference to Hofstede's research on the differences in work behaviors across cultures. Hofstede's research found that differences in work-related values and attitudes were more effectively explained by national culture than other characteristics such as age, gender, or position within the organization (Adler, 1991, p. 46).

Hofstede (1983) has derived five dimensions that can account for values and interests across different cultures:

- Power Distance (PD)

- Individualism/Collectivism (IC)

- Masculinity/Femininity (MF)

- Uncertainty Avoidance (UA)

- Long-term/Short-terms orientation (LT/ST)

	Power distance	Uncertainty avoidance	Individualism
Canada	39	48	80
United States	40	46	91
Arab Countries	80	68	38
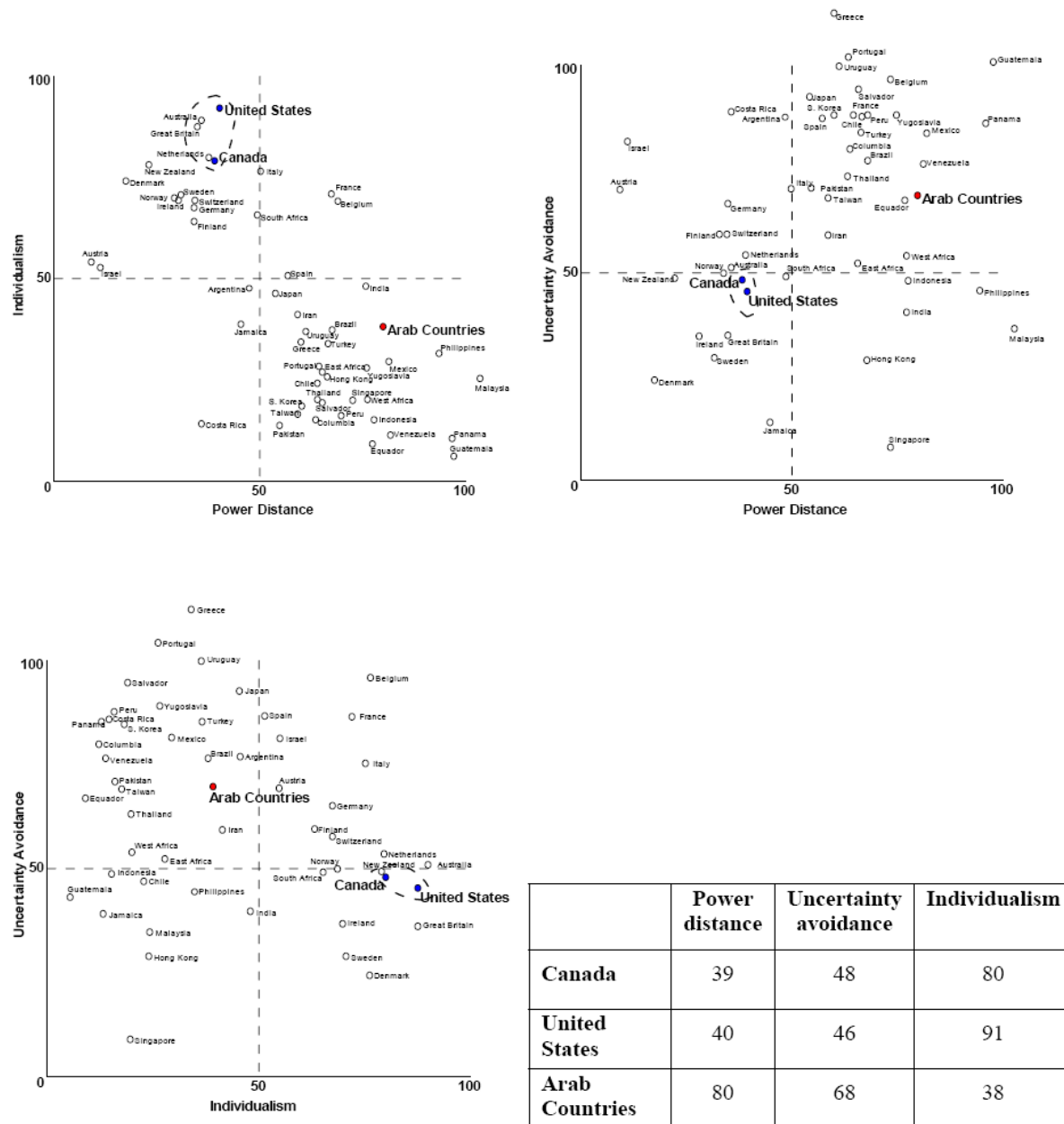
Graph no.3.1

Hofstede and Bond (2001), identified that PD is the extent to which the less powerful members of society accept and expect that power is distributed unequally. High scores on this dimension indicate high PD. The above table show a high power distance in Arab countries which measures up to 80 in comparison to in USA and Canada having less power distance of 40 and 39 respectively.

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Also, Hofstede and Bond (2001), stated that IC is the degree to which individuals are integrated into groups. Group orientation is linked to close ties between people, whereas individual orientation is linked to loose ties between people. High scores on this dimension indicate individualism. Canada shows high score on the Individualism dimension up to 80 in respect to Arab culture of 38 who are more group oriented than individualistic.

Moreover, Hofstede and Bond (2001), identified that MF refers to the distribution of roles between the genders. This measure examines whether a society embraces assertiveness, competitiveness, and material success rather than focusing on modesty, caring for others, quality of life issues. High scores indicate a more masculine society.

In addition, Hofstede and Bond (2001) identified that UA deals with a society's tolerance for uncertainty and ambiguity in its search for truth. Uncertainty avoiding cultures try to minimize the possibility of such situations by strict laws and rules, safety and security measures. People from uncertainty avoiding countries are also more emotional, and motivated by inner nervous energy. People from uncertainty accepting cultures are more tolerant of opinions different from what they are used to; they try to have as few rules as possible. High scores on this dimension indicate a tendency toward uncertainty avoidance. Arab communities are more uncertainty avoidance societies scoring 68 on the Hofstede table in comparison to US where the score is 46.

While Hofstede and Bond (2001), identified that LT/ST refers to a difference in focus: the present versus distant future. The former indicates a propensity for action whereas the latter indicates a propensity for planning. High scores indicate long-term orientation.

3.3 Hofstede Study and Arab Culture

Moreover, Hofstede (1983) argued that the Arab region has diverse attributes that can influence the business at either individual or organizational levels. According to his argument, the culture is collectivist and masculine and high on both the PD and UA dimensions. Arab data has not been published for Hofstede's time dimension because data was only collected from 39 countries.

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Nevertheless, findings from GLOBE's Middle East cluster (Kabasakal and Bodur, 2002) indicate that it is low on future orientation, is group-oriented, hierarchical, and masculine as shown in below graph

Figure 3.2
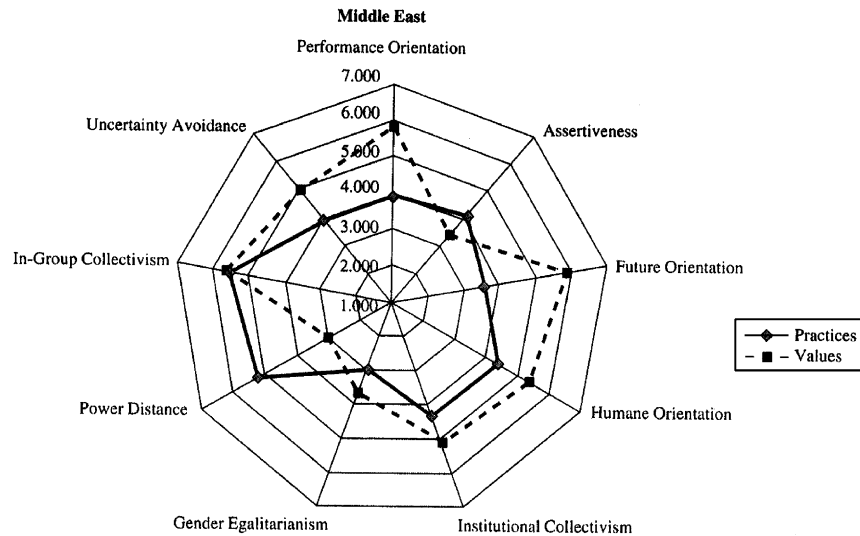
Gupta and Hanges (2004) also indicate that the cluster scores low on UA and is mid-range for the remaining dimensions (PD, Institutional Collectivism, Human orientation). The differences in the findings for the two studies on the UA and PD dimentions may be interpreted as implying that the NC has changed over time or it ma be attributed to other explanations such as research design and sampling differences. Nevertheless, PD scores for this cluster were higher than found in any other region (Carl et al, 2004)

It's significant that GLOBE's Middle East cluster (Kabaskal and Bodur, 2002) only included Egypt, Morocco, Turkey, Kuwait, and Qatar, which compromises the relevance and validity of the results, for example, Arabic is not the main language of Turkey. Furthermore, some of the data in Hofstede's research does not disaggregate to the country level, i.e. Arab Region, East Africa and West Africa, yet the focus of his theory is on national differences. Hofstede (2005) however point out that only Arabic speaking countries were included in the arab group. Research involving the Arab world has been contradictory (Feghali, 1997). Also Feghali explains how Arab definitions vary, which can cause misleading conclusions to be drawn, e.g. the interchange of referring to the Implementation of PMO in Middle East

Middle East and the Arab world, yet not all Middle East countries are Arab. To overcome these weaknesses, she points to a sensible definition that rears to whether or not Arabic is one's first language and whether or not a person identifies themselves as an Arab.

3.4 Islam and Arabic Influence

Arabic and Islam play a crucial role in the Arab culture (Loosemore and AL Muslmani, 1999; Kabasakal and Bodur, 2002; Hesselgrave and Rommen, 2003; Haleem, 2006). Religion has a huge impact on every day behaviour and may be seen as having a greater current influence than in many of the countries of the West (Loosemore and AL Muslmani, 1999; Hesselgrave and Rommen, 2003; Ali and Al Owaihan, 2008). Islam has influenced standards, procedure and laws (Kabaskal and Bodur, 2002). Contracts within the Gulf have a religious aspect since any violation is considered to be a sin (Hall, 1960; Ali and Al-Qwaihan, 2008). Most contracts are written in Arabi first (Haleem, 2006).The Arabic language is also important to one's identity (Kabaskal and Bodur, 2002).

In connection with language and culture, Loosemore and Al muslmani (1999) indicate that the Arab culture is high context. Many non verbal cues exist within the culture, e.g. close contract/touch (Feghali, 1997). Westerners often like to be direct, whereas the opposite is true for Arabs since they are more likely to ignore something than disagree with it (Feghali, 1997; Loosemore and AL Muslmani, 1999). They are also likely to conduct business in busy/noisy atmospheres, which may confuse or even irritate an outsider (Nydell, 2006). Feghali (1997) indicates that communication research has characterized Arab communication as repetitive, indirect, elaborate, loud, exaggerated and praiseful. There is also a high degree of " code switching" in Arab societies, with many Arabic speakers alternating between Arabic, French and English (Feghali, 1997).

Expression such" In-Sh-Allah" and Maktoob" meaning "God willing" or "it is written" are often spoken within the Arab community (Yasin et al, 1997).These concern beliefs that one's fate is in the hands of Allah (Yassin and Zimmerer, 1995). Thus, people have limited control over daily events. As mentioned, cultures vary in the way they view time, technology and uncertainty. The Arab culture is placed in the subjugation and Polychromic category since Islam encourages a determinist view where the environment is seen as difficult to control (Loosemore and Al Muslmani, 1999). Within the business

Implementation of PMO in Middle East

world, these beliefs may reduce responsibility or accountability because it is believed that people have no control over time in the first place (Gray and Larson, 2002).

Deadlines are seen more as a guide (Hurn, 2007) and project success is rated differently (Yasin et al, 1997). It is not surprising then than other common Arabic expressions are "Bukra- Tomorrow", "Momken- Maybe", "Ma'alesh- Never mind" (Feghali, 1997).

3.5 Arab Values and Leadership

Arab mangers have been found in some research studies to hold values that are inherent to their culture (Ali et al, 1995: Ali and Al Kazemi, 2005). Al Jafary and Hollingsworth (1983) indicate that early studies showed that traditional cultures opt for authoritarian management styles. However, their research and Ali et al's (1995) study shown to the contrary may be due to the strong influence from the west (Al Jafary and Hollingsworth, 1983). Recently, Kabaskal and Bodur (2002) revealed a preference for charismatic and team oriented leadership. Whilst modern leadership preferences do refer to a more participative nature, authority remains highly respected value amongst the workforce (Loosemore and Al Muslmani, 1999; Becker, 2004). Findings illustrate an extended hierarchical structure (Kabaskal and Bodur, 2002; Hofstede, 2005) and Dorfman and House (2004) suggest that a strong leadership style is likely in the Arab region since consideration is a sign of weakness.

3.6 National Culture

The social- cultural context can make an important contribution to one's understanding of business operations (Elbanna, 2008). For example, asking employees for opinion in Egypt is considered a symbol of weak management (Elbanna, 2008) and Arab managers are less likely to talk about their work problems (pines, 2003). Studies investigating the influence of the arab culture on commercial deals have not been forthcoming, even though the Arab world plays an immense role in today's global industry (Yasin and Zimmerer, 1995; ali and Al Kazemi, 2005, Ali and Al Qwaiham, 2008). They point out that most research has been based more upon stereotypes or generalizations rather than factual information. Attention needs to be given to National Culture because this relates to matching employees to appropriate jobs and thus business success (Behery, 2009).

3.7 The Middle Eastern Manager

While the number of studies into Arab management style is limited, those documented show considerable differences from the expectations and mores of Western cultures. Adler (1991) refers to a survey reported in The Arab Executive, where two-thirds of Arab executives thought employee loyalty was more important than efficiency (p. 47). Weir (2000) reports that Arab managers "believe relatives and friends are more important than market mechanisms in decision outcomes" (p. 70). Based on these observations, the leadership and decision-making processes of the Arab manager are influenced by a myriad of different influences not considered by Western management theory.

Expanding on the management theme, Weir (2000) proposes four paradigms of management (Exhibit 1). Key points between the American and Arab styles are the private versus familial organization and an individualistic versus networked culture. Weir (2000) and Kavoossi (2000) also describe Arab culture as context dependent, whereby culture itself affects decisions and management styles. Not only is the culture context dependent, it is seen as a high context culture, one where relationships and behaviors are perceived as an important vehicle for doing business. Effective management therefore becomes not only an issue of skills, but also one of relationships and behavior patterns. Western management practices are not always viewed as appropriate behavior, thereby reducing managerial effectiveness.

Table 3.1

	Organization	Ownership	Key Discipline	Culture
American	Private	Autocratic Negotiative	Finance Marketing	Individualistic Capitalistic Universalistic
Japanese	Private Interventionist	Autocratic Participative	Production Statistics	Societal Relationship
European	Mixed	Participative Representative	Human Resource	Segmented Collectivist
Arab	Familial	Autocratic Consultative Skills	Ethics Interpersonal relationships	Universalistic Networked

Four paradigms of management (Weir, 2000)

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What then are the characteristics of the Arab manager? Elgamal (2000) proposes an Arab Management model that balances four principles:

- Islamic religion
- Arab culture
- Westernization
- Political, Economic, and Social systems of the country or region involved

The manager must to show adherence to Islamic beliefs, follow Arab cultural traditions, acknowledge the systems of the country, and act as Westernized as necessary, an action that is heavily related to the level of interaction between his position and any Western representatives. The manager's style may actually change from person to person, dependent upon position and nationality. For a Westerner, this can be distracting and a cause for concern, as we are raised to expect equality of treatment, regardless of race, religion, creed, or gender.

CHAPTER 4

PROJECT MANAGEMENT IN MIDDLE EAST

Implementation of PMO in Middle East

Project Management in Middle East

4.1 Introduction

The project management discipline emerged from many different fields such as defense, construction, and engineering (Melik, 2007). The United States honor Gantt and Fayol and consider them as forefathers for project management (Melik, 2007).

PM evolved into in to a separate discipline in the late 1950s (Morris et al, 2006) and since then has been used increasingly in a growing range of industry sectors (Civil, Petrochemical, IT, Pharmaceutical, Education, Banking, etc.). Project usage has simultaneously increased globally (Kippenberger, 2000).

Differences in management styles, religion, and culture all act to create complexity for project management in the Middle East. Added to these are two other challenges, diversity of the work force and employment expectations of local citizens. The oil-rich GCC countries have seen rapid economic expansion in the past 20 to 30 years, built mostly using expatriate labor. In the United Arab Emirates, nationals (local citizens of the country) comprise only 27 percent of the population (Gill, 1999) and hold only 23 percent of the jobs. In the expatriate population, twelve percent are non-UAE Arab; a further 59 percent are Asian. The majority are from Islamic countries such as Pakistan, Bangladesh, Malaysia, and Indonesia. Less than two percent are European. Added to this is a local population that expects promotions based on nationality rather than on qualifications (Al-Khalifa & Aspinwall, 2000) cited in (Chapman, 2004). It is therefore no surprise that Western project management theories struggle to survive in the Middle East.

4.2 Project Management and Professional Bodies

PM has been applied worldwide and has a ling tradition in Saudi Arabia and other Arab countries (Gray and Larson, 2002), but the US is considered the main home of PM (Hofstede, 1983). The first PM body of knowledge (PMBOK) guide was created in the 1970s by the American Project Management Institute (PMI) (Morris et al, 2006). The two main sources of PM professional knowledge are the PMI's PMBOK and the Association of Project Management (APM) Body of Knowledge. The APM is the UK based

Implementation of PMO in Middle East

association, yet the accreditation program was not launched until the 1990s (Morris et al, 2006). The APM's (2006) and PMI's (2004) guide have several distinction, such as the US PMBOK guide is close to 400 pages, whereas the UK APM guide is 200 pages and deals with a broader range of knowledge bases (Morris et al, 2006). These major differences in the depth and coverage of the subject may reflect national culture differences in the need for information.

4.3 Project Management and National Culture

The field of national culture is prevalent within general management research (Shore and Cross, 2005; Camprieu et al , 2007). Many cultural school theorists have studied such relations (e.g. Hall, 1960; Hofstede, 1983; Hartog et al, 2004). However, insufficient attention has been given to the relationship between PM and national culture (Kippenberger, 2000; Kruglianskas and thahain, 2000; Zwikael et al, 2005; Ochieng and price, 2009). According to Kippenberger (2000), cultural fit is rarely considered within the field of PM. Several authors have called for more attention to be given to investigations of the impact of Natural culture on PM processes (Zwikael et al, 2005; Shore and cross, 255; Dvir et al, 2006). For instance, Keil et al (2000) found that culture is related to the willingness to continue a project, yet they point out that research knowledge is limited within this field.

An improved understanding of culture could increase competitive advantage through making improvements in speed, knowledge management, and innovation (Erikssonet al, 2002). Various cultural perspectives can be brought to the project, which could lead to more effective, creative and innovative solutions (Yasin et al, 1997). Nevertheless, the wide variety of views will have to be managed effectively and in a manner that sensitive to cultural differences.

4.4 Western Manager in Arab World

The western thinking behind PM notions have been mentioned by several authors (e.g. Hofstede,1983; Wang, 2001; Devine, 2007), questioning the effectiveness o applying " Western thinking" to international projects. A Western project manager is often employed overseas where she/ he must manage numerous nationalities (Shore and cross, 2005). Cultural differences may affect the performance of project manager (Milosevic,

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1999). Wang and Liu (2007) illustrate that because PM has Western roots, it conflicts with traditional Chinese culture. Hodgson (2007) indicated that the number of PMI certified professionals is less in Africa and the Middle east, yet PM is being used.

Loosemore and Al Muslmani (1999) point out that, British project mangers are likely to spend a significant amount of time in planning, whereas this can be going against fate for the Arab project manger. Also Gray and Lerson (2002) stated that Arab plans are less detailed and only take account of only the next week or even less since other situations may take priority. Deadlines are more likely to be perceived as too demanding and may even seen a rude in the Arab culture (Hall, 1960). Although lack of planning has been attributed as characteristic of the Arab culture (e.g. Kabasakal and Bodur, 2002), Hofstede (2005) suggested that high UA cultures do plan but prefer to leave it up to the experts.

4.5 Risk Management and the Gulf Region

Risk management in UAE has been investigated by El Sayegh (2008. Findings indicated that the highest rated risks were delas/ shortages of resources, lack of necessary planning and heavy regulations (El Sayegh, 2008) This may explain Why external sources of problems were emphasized in Yasin et al's (1997) study. Yasin et al (1997) found that Arab project managers relied on their personal networks and focused on external sources of problems (i.e. government red tape, regulations, client changes, cost changes and availability of resources). The Arab sample also recorded deficiencies in planning and goal definitions. Client communication logs and work breakdown structures (WBS) were rated positively (yasin et al, 1997), which is probably due to the weight attached to relationships (Hall, 1960). Many projects in the UAE are now using several of electronic communication systems (El- Saboni et al, 2009).

The culture of project management should be spread among project mangers before launching PMO, therefore; Perry and Leatham (2001), suggested a three stage process:

1. Training project managers
2. Launching the PMO
3. Deployment through active project consultation.

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On the other hand, Hofstede (1983) claimed that a strong organization culture can reconcile national culture differences. He argues that organization culture unites different people through organizational rituals. This is of particular relevance since organization culture is not commonly contemplated in Gulf workplaces. Kendra and Taplin (2004) argue that in order to be successful with PM, companies must change their organization culture to be project based. Suliman (2006) found that organization culture in the UAE has a low affect on individual behavior. In addition, few studies investigate the influence that national culture has on organization culture within the Arab context.

4.6 Middle East Expansion

Middle East expansion has become a hot topic over the last six months as firms try to leverage their positions in the booming Gulf region's energy and projects sectors. It is also thought that Dubai would be a good base for firms to target the heavily constrained Indian legal market (Begum, 2005). Along with Dubai's population increases, so does the demand on local services, such as electricity, water, sanitation and transportation. For example, the RTA Dubai's transportation regulator and integrator recently announced its plan to invest AED 44 billion, to build 500km of roads and multilevel interchanges (Sambidge, 2008). Another example is Al Maktoum international airport. When completed, it is expected that the airport would be the world's largest and would have a handling capacity of 120-150 million passengers and 12 million tons of cargo and is estimated to cost around AED 30 billion (AME info, 2007; Hvidt, 2007; Zawya, 2008).

"Project Management is the key to meeting a wide range of strategic objectives," says Kazim (2007) cited in (Ajam, 2007) "The importance of project management comes from its focus on achieving objectives that might be overlooked in the carrying out of routine ongoing operational tasks of any organization. It is important also because it better ensures the achievement of set objectives. We see Project Management practices as a strategic competency and mandatory for companies to succeed and that's why we welcome to the Knowledge Village community this association which promotes professional project management." Also Makansi (2007) cited in (Ajam, 2007) said "Project management is becoming more important in Dubai and the region especially with all the innovative, unique and large projects taking place. Since project management

practices are emerging rapidly in this region, we feel the necessity of supporting body to develop and promote the project management industry and professionals."

4.7 Project Management Issues in Gulf

Although there are a great number of projects which are expected to be under taken in the near future, but unfortunately, there exists no information on the maturity, competency or performance of project management in public sector in Dubai. Nevertheless, by reviewing some of the recent events, it can be seen that there exists some issues with regard to project and program management. In August 2007, concerns has been raised by some of the major property developers in Dubai such as, DAMAC and Nakheel, with regard to the ability of DEWA to expand its electricity and water capacity at the same rate as Dubai's real estate boom (Bianchi, 2007). On the other hand, studies on the project management performance of organizations in Dubai are scarce. It has been indicated that around 50% of construction projects in UAE suffer delay (Faridi and El Sayegh, 2006).

The first implementation of the PM system in Kuwait was in the mid 1980's in a number of government projects supervised by the Ministry of Public Works (MPW). At present, few huge projects owned by semi-government companies such as Kuwait National Petroleum Company (KNPC) and Kuwait Oil Company (KOC), are also delivered by the PM system. (Kartam et al, 1998). They stated that in spite of the successful implementation of the system worldwide, many of projects in Kuwait have exceeded their completion time by 100%, in addition to exceeding their budget. Kartam et al (1998) gave an example of the most recent project adopting the PM system in Kuwait which is the `Amiri Diwan', where construction resumed in May 1992, after the Iraqi invasion. The original project completion period of three and one-half years has been delayed four years, and the original budget of KD 92 million has exceeded this figure by 63%, reaching KD 150 million.

Program management in Iraq grew increasingly complex from 2003 to 2007, ultimately involving hundreds of contractors and thousands of projects. The reconstruction effort required, but did not initially receive, consistent and effective oversight. U.S. policymakers repeatedly shifted strategy in response to the constantly changing

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circumstances in Iraq. These policy shifts, including leadership changes, meant that program managers not only dealt with long periods of uncertainty, but also had to adjust to new systems, procedures, and reporting requirements. This compounded the difficulty of delivering projects on time, within scope and budget. (Glen, 2004)

CHAPTER 5

IMPLEMENTATION OF PMO IN MIDDLE EAST

Implementation of PMO in Middle East

5.1 History of Project Management

Although the term Project Management Office is a newly coined phrase, the concept of a PMO has been around since the time of the Egyptians (Andersen, Henriksen, & Aarseth, 2007). Managing smaller work efforts toward a large product is evident in the documented management of the construction of the Egyptian Pyramids (Andersen, Henriksen, & Aarseth, 2007).

Many large construction and industrial firms in the Middle East are Multinational Organizations. Some of these have not much experience in the region and faced with challenges that effect their control on the project. The right selection of a project management firm, therefore, is a crucial factor to the success of the project. Attempting to predict project firm performance with regard to a forthcoming project requires appraisal of current workload and resource capacities, as well as investigation of the performance on recent projects.

5.2 Project Management and its Implementation

One of the most challenges faced to implement PMO in Middle East was the time needed to educate local people about the role of PMO and then to understand local customs and practices. Project design and execution should incorporate local contractors and vendors. Also, planning for projects should consider local and regional quality standards, rather than trying to impose U.S. standards, which too often caused increased cost and delayed execution.

Another challenge was to develop policies and procedures to manage non-U.S. appropriated funds. The United States deployed to Iraq without standardized policies and procedures to manage non-U.S. appropriated funds (e.g., the Development Fund for Iraq). Policies and systems were thus developed reactively and not implemented consistently. As a result, there were questions about the accountability of non-U.S. funds. As oversight entities pursue allegations of waste, fraud, and abuse, jurisdictional questions continue to

surface. Before contingency operations begin, planners should develop clear policies regarding the management of non-U.S. funds. (Glen, 2004)

5.3 SUKAD Survey

SUKAD has conducted a survey in 2010, 172 project mangers, professionals, line and senior managers and executives have been responded from Middle East countries. The most highlighted results from SUKAD's Middle East survey are the following:

1. The aim of this survey is to identify PMO status and practices in the Middle East. Most respondent was from UAE (54%) and followed by KSA (18%) as shown in below graph (SUKAD, 2010).

Graph no.5.1

Respondents: By Country

4%
11%
13%
18%
54%

■ UAE ■ KSA ■ Other GCC ■ Other ME ■ Others

Implementation of PMO in Middle East
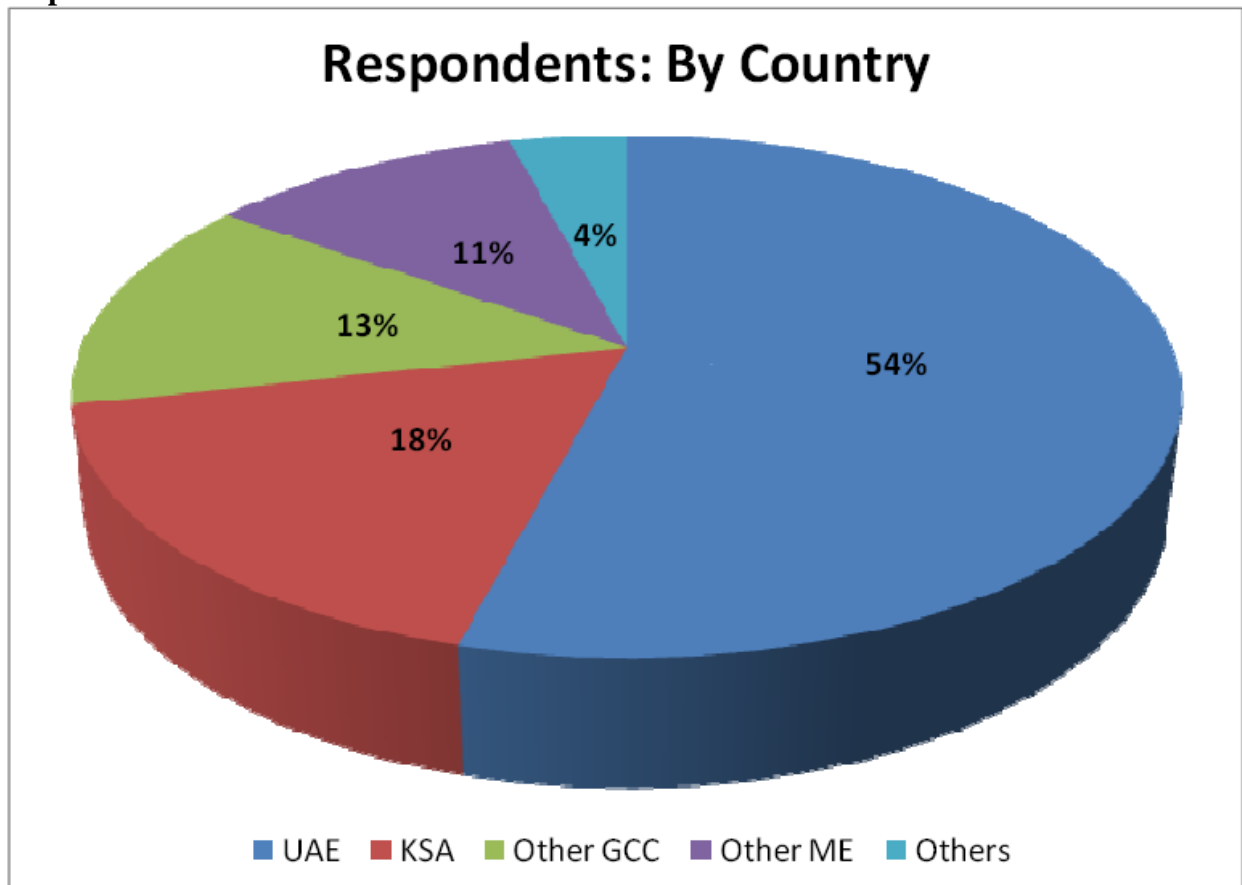
2. PMO which has been established more than 5 years, is widely available in oil and gas industry by 33%, followed in information and communication technology industry by 25% as shown in below graph:

Graph no.5.2
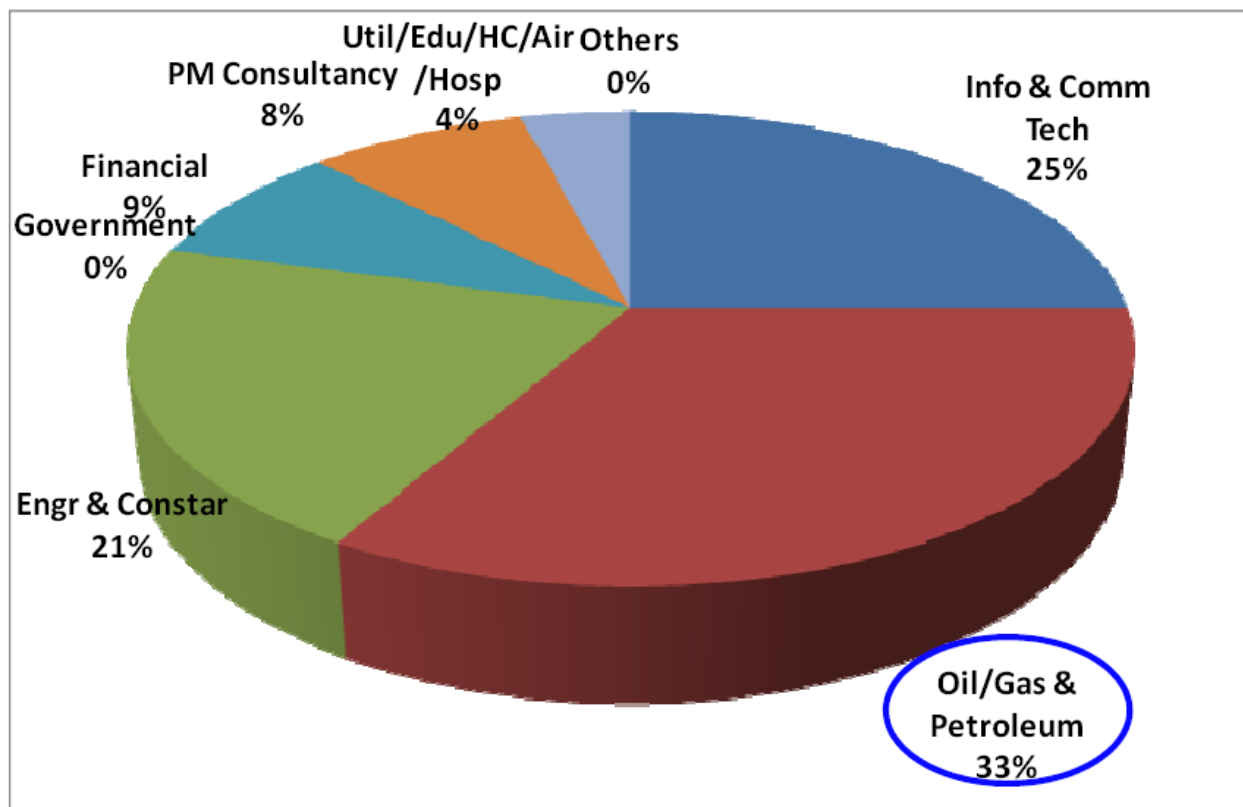
3. PMO is widely implemented in Middle East's organizations. The results of survey indicated that 67% of Middle East's organizations have implemented the PMO, while 15% have not yet implemented the PMO. Moreover, 15% of Middle East's organizations have considered the concept of PMO to be implemented as shown in below graph. (SUKAD, 2010)

Graph no.5.3

Implementation of PMO in Middle East
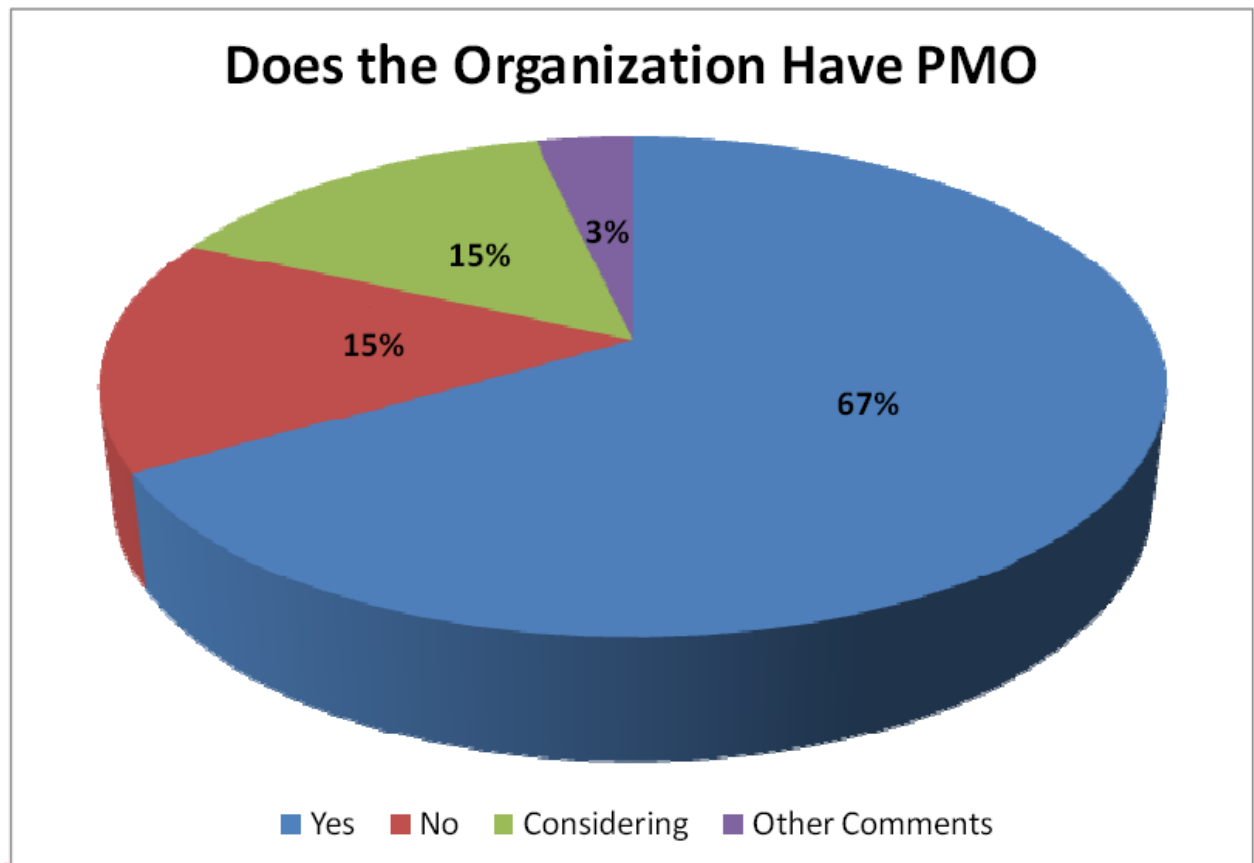
4. SUKAD's survey results indicated that, 40% of organizations have a PMO with 3-5 years old, followed by 24% organizations have a PMO with more than 5 years old. On the other hand, 23% of organizations have a PMO with 1-2 years old. as shown in below graph (SUKAD, 2010):

Graph no.5.4

Implementation of PMO in Middle East
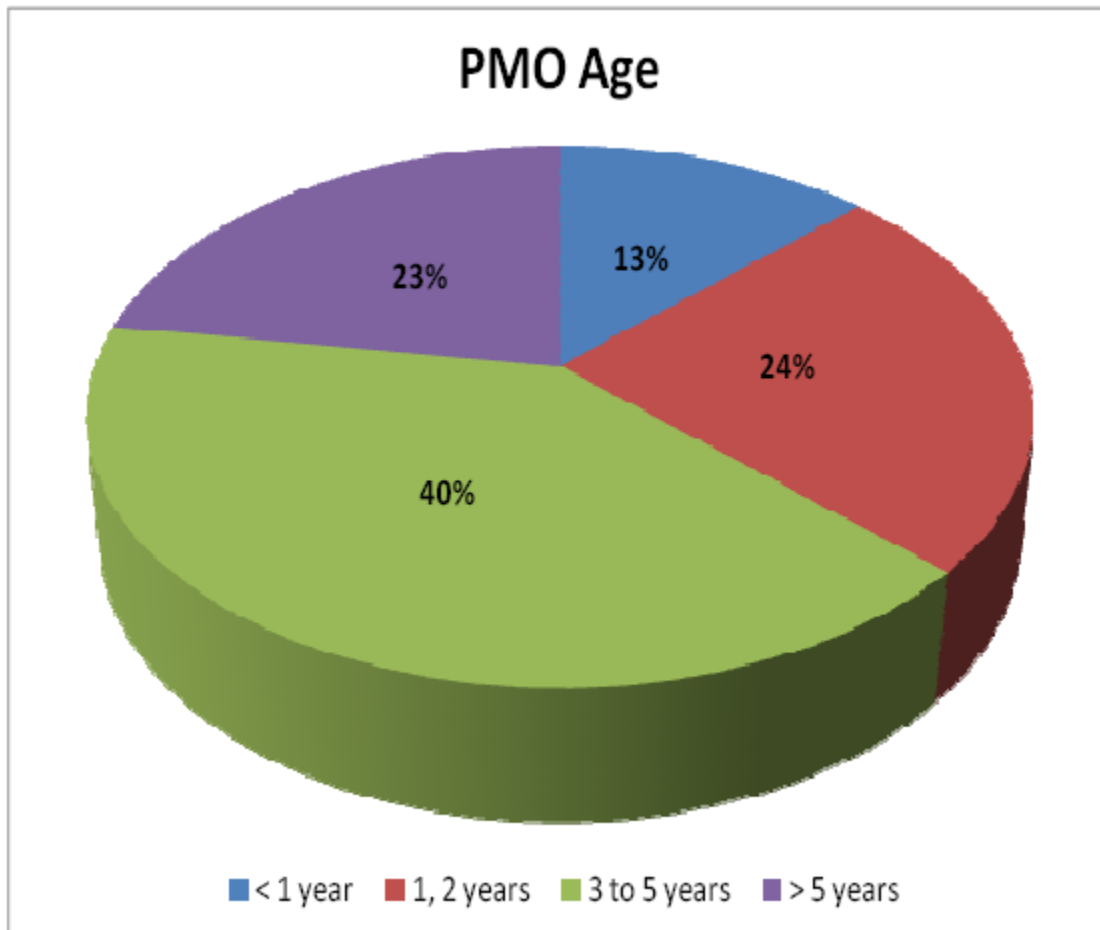
5. More over, the result SUKAD's survey indicated that, only 10% of PMOs were highly successful, followed by 42% and 30% of PMOs were successful and neutral as shown in below graph. (SUKAD, 2010)

The reasons of highly successful PMO as indicated from survey were the following:

- Top management satisfied with reporting level and escalation issues
- The organization following the pm methodology with fully understanding
- PMO Maturity
- Successfully implemented PM fundamentals
- Meet deadline and budget

On the other hand, the reasons of PMO Neutral were the following:

- PM Methodology is there but not adhered
- Work without input from operational PM
- Culture resistance
- Primarily reporting not helping PM
- No active participation
- No awareness across the company
- Role of PMO is not defined well

PMO Success - Respondents' View

■ Highly Successful ■ Successful ■ Neutral ■ Not Successful ■ Failure ■ Others

Implementation of PMO in Middle East
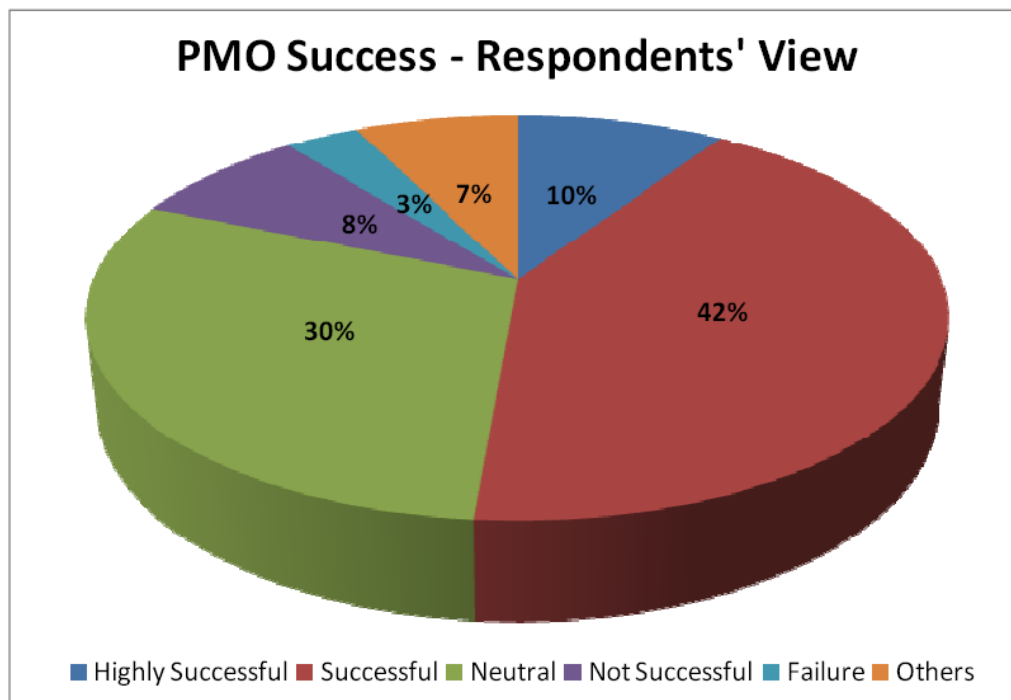
CHAPTER 6
CHALLENGES OF PMO IMPLEMENTATION
IN MIDDLE EAST

Implementation of PMO in Middle East

Challenges of PMO Implementation in Middle East

6.1 Introduction

Whether we are a new project manager, or an experienced project leader, project management continues to reveal itself as part art, and part science. Project Management is a skill that takes its due time to develop in both a person and organization. Achieving success requires analyzing mishaps and failures in order to improve. Focusing on each project's challenges / mistakes and learning from them will help to build a more capable and successful project management capability.

Chapman (2004) stated that from the experience of other managers in the Middle East, it is evident that Western project management theories do not easily translate into practice within the Middle East region. Also Chapman (2004) has identified that differences in management styles, religion and culture are playing a major role in creating complexity for project management in the Middle East. Moreover he has stated that there are more challenges which are as follow:

6.2 Challenges

1. Diversity of the Work Force

The GCC countries have been developed rapidly in the past 20 to 30 years by mostly using expatriate labor. Initially most of the labour was unskilled, however with the completion of basic infrastructure professional expatriate started to come in and provide services. These people were well educated and experienced in their native country usually in Asia. However they might lack advance project management skill, which are being now embedded through training and education. (Chapman, 2004)

However the highly trained professional expatriate workforce is now migrating towards other countries such as Canada, Australia and News Zealand due to better facilities and citizenship. Therefore in case of any calamity their might be a extensive outflow of these

expatriates resulting in shortage of highly skilled staff and massive unattended projects. (Chapman, 2004)

2. Culture

Chapman, (2004) found that since culture affects the ability to manage, it is reasonable to assume that culture also affects the organizations in which management is occurring. Also, he stated that familial ranking. Family, friendships, relationships, and even graduation dates can all determine a person's position on a team or within an organizational structure. Relating to an incident early in his career, a 30-year veteran of management in the gulf said that the first organizational chart he developed was returned to him as unacceptable. Considering only skills and position requirements, he placed a more recent national graduate in charge of an older national graduate. Reflecting Arab culture's high power distance and low individualism (high collectivism), age and family rank carries greater importance than qualifications or knowledge; the older graduate should have been placed above the younger man. An incorrect assignment may create loss of face, embarrassment, or insult. The adroit manager carefully reviews all the variables before team assignments are made.

3. Empowerment

In study of the introduction of TQM into Qatar business, Al-Khalifa and Aspinwall (2000) cited in Chapman (2004) observed that "difficulties associated with empowerment at lower employee levels" and the prevalence of a "bureaucratic culture" as empowerment is a western concept not easily translatable to Arab culture. Neither is the concept of self-managed teams. Arab managers do not lead by doing, but by managing. Attempts to change this style tend to create more confusion than the changes resolve, resulting in a dysfunctional team and lower productivity because members do not understand their new roles. As globalization continues, effective team building and new team paradigms continue to challenge managers in the region (Al-Khalifa and Aspinwall, 2000) cited in (Chapman, 2004)

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4. Communication

Chapman (2004) identified that in business meetings, conversations will often carry on in more than one language, frequently with more than one conversation on-going at the same time. Project ownership will always, or at least partially, is with nationals, since whole foreign ownership is not permitted. Arab businessmen believe in hands-on control, therefore it is common for owners to attend meetings along with their senior representatives. Fluency in English is mixed, though it is a loss of face to admit a lack of understanding. Other attendees may also have a first language that is not English or Arabic. Combined together with dialects, strong accents and the nuances of British versus Canadian versus American English, the potential for missed communications is huge.

Also Chapman (2004) found that western viewpoint would encourage written reporting as a means to reduce communication risks. Arab culture, however, is a verbal tradition; any written report must be accompanied by a verbal one, thus continuing the difficulties listed previously. In the end, communication is achieved; the project manager, however, is recommended to fortify himself with large doses of patience.

From above, it's clear that communication plays an important role in making decisions. Accordingly, Swanson (2008) stated that the fast development of green building in Abu Dhabi will be associated with a challenge of decision makers who may not fully understand the impact they can have on larger scale. Also the author has investigated the reason of this challenge which is due to the unfeasible sustainability goals for some stakeholders.

5. Teamwork

As mentioned above, Chapman (2004) found diversity of the work force is one of the main challenges in project management in Middle East. Dadfar and Gustavsson (1992) cited in Chapman (2004) observed that in international construction projects, the arrangement of work groups was most successful when culture, language, religion, and tribal nationality were considered in team formulation. They found that 70% of site managers believed that manager were less effective when managing a work group

composed of several nationalities. Reasons given for avoiding multi-national teams included:

- Language was a major obstacle to effective communication among workers of different nationalities.

- In less educated workers, there was a tendency to bias for their traditions, religion, etc., which leads to conflict within the team.

- Tribal conflict exists, especially between Arab workers. "Conflict is an integral element of Arab culture; perhaps it is rooted in tribal traditions and intertribal conflicts" (Dadfar and Gustavsson,1992)cited in (Chapman ,2004)

Multi-national team building is difficult in the Middle East due to salary and position inequalities that are based on gender, race, and nationality of passport. Male nationals always rate highest on the positional scales, followed by Western and expatriate Arab male professionals. Indians are next, then Pakistani. Other Asian groups follow, though natural selection and the known racial equalities within the region tend to keep these groups away. Even when an Arab has lesser qualifications than his Indian counterpart, the Arab is likely to receive the position with higher responsibility and greater salary. A National would never take a subservient position to an Indian or Pakistani without orders of magnitude difference in professional qualifications. (Chapman, 2004)

6. Project Cycle

The project cycle envelops the idea of a predefined set of events that guide the project from start to finish. Research literature proposes various frameworks, each providing a sequential management approach that is orderly, methodical, and disciplined (Forsberg et al., 2000) While Chapman (2004) was sure these criteria exist in projects underway in the Middle East, one is often hard pressed to easily identify these frameworks.

This nebulous definition of project activity flows throughout the project cycle. Rather than following the simple V model (Forsberg et al., 2000), projects in the Middle East tend to meander their way from start to finish. Elgamal (2000) describes one of the major problems faced by Arab management as, "… managerial development plans suffer from Implementation of PMO in Middle East

discontinuity. There are no well designed articulated plans that have clear objectives for the short, medium and long terms". For many years, the Arab people led a nomadic existence. This has been followed by extraordinary wealth. They have not yet developed the skills for long-term planning, nor found the reasons for its necessity. Therefore, projects are often approached as a package of little projects. Each project is carried out in turn, each with some measure of success. At the end, the bigger project is completed; though not necessarily on time or within budget, yet it is still seen as a success.

More over Elgamal (2000) found planning is identified as an area of weakness in present Arab management. Once the contract is signed, the Arab businessman expects to see the work begin. Planning is an afterthought. It is also not unusual to see large projects sitting idle for weeks or months, preceded and followed by days of rapid progress. While unable to present evidence, it is likely that weak planning at the beginning of the project has resulted in resource shortages or conflicts later in the project, warranting a break in work while the necessary materials are found and allocated. (Chapman, 2004). Moreover, Ginevri and Beraha (2005) cited in Ginevri and Beraha (2009) found that,In some cases of projects planning in Middle East, plans were found exceedingly rigid, and the Gantt diagram was looking as a cage trapped ideas with the possibility of adjustments.

In addition, opportunity and risk assessment also suffers from the lack of sufficient advance planning; which lead to exceed the budget. One expatriate manager suggested resistance to planning was the Arab manager's way to provide flexibility and avoid accountability. Also, lack of planning in the early stages can affect control in the later stages of the project. Without a good benchmark, project managers will find it difficult to identify where control points are required.(Chapman, 2004). In this regards, Ginevri and Beraha (2005) cited in Ginevri and Beraha (2009) found that the complexity in analysis between the project needs and the stakeholders' requirements, is one of the challenges in Middle East which usually lead to have risks, and that due to stakeholders' attention was concern about the technical and logistic solution rather than what they really need and How they will achieve it.

Implementation of PMO in Middle East

7. Total Quality Management

The number of ISO 9000 certified companies in the UAE has grown ten-fold to 1,004 in the years between 1995 and 2000 (Castillo, 2001). The introduction of TQM has required organizations to "develop a mind set of process orientation" (Thawani, 2001, p. 12) so that they "manage the business as a set of interacting processes, rather than managing departments" (Thawani, 2001). Unfortunately, many of these same organizations have yet to comprehend the managerial benefits of ISO 9000 and TQM. Rather, they see these systems as marketing tools (Al-Khalifa & Aspinwall, 2000) cited in (Chapman, 2004). Al-Khalifa and Aspinwall (2000) cited in Chapman (2004) observe that "The region is a long way from maturity in terms of total quality practices and organizational culture and climate" (p. 196). This observation similarly applies to the application of project management techniques. Until maturity is reached, managers can expect a continuation of the haphazard processes presently common in the region.

8. Women Managers

The status of women in teams is even more difficult, as their position in working society is still developing. While women managers do exist in today's business organizations, they are most numerous in Western companies, in roles such as marketing and sales. It is a fact of life in the Middle East that a woman manager does not receive the same acknowledgement as a man in a similar position, nor the same salary. Female nationals in management are even more unique; their position in the pecking order is currently undetermined. While women are respected, their place in society is generally viewed as one subservient to men. Consequently, mixed gender teams are unusual and fraught with social and cultural landmines. (Chapman, 2004)

9. Opportunity and Risk

Opportunity and risk assessment also suffers from the lack of sufficient advance planning. Middle Eastern managers have great practice at thinking on their feet. Opportunities and risks are handled as they occur.

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This may be credited to the local attitude of Insha'la – that is, Allah willing. Since Allah controls everything, it is He who will cause the project to either succeed or fail. Therefore, it is not the place for a 'mere human' to concern himself or interfere. Added to this is the fact that labor is extremely cheap in this part of the world. If the project is behind schedule, simply pour more labor into it. The axiom more labor, less progress just does not seem to apply, or at least it is not acknowledged. (Chapman, 2004)

10. Understanding of Cultures

In the end, it is the project manager's ability to lead that holds the project together. Leadership is a valued commodity in Middle Eastern cultures. There are many great leaders within the Arab community, and many expatriate managers find long and satisfying careers in the region. The greatest challenge is coping with the cultural conditions, so many of which seem to act counter to all Western theories of management. Expatriate managers must be culturally sensitive to those working for them and the organizations that employ them. Many Western beliefs of right and wrong must be left behind. Arab management do not recognize them, and Arab and Asian workers become confused by them. It is therefore an ongoing process to find the correct balance between cultures. (Chapman, 2004)

11. Lack of accountability

In the Gulf mostly the project leader and related players are not held accountable for their results - or lack of achieving all of them due to their status in the society. (Chapman, 2004)

12. Vision and goals not well-defined

It is often seen that the goals of the project (and the reasons for doing it), along with the sub-projects or major tasks involved, are not always clearly defined. Clearly communicating these vague goals to the project participants becomes an impossible task. (Chapman, 2004)

13. Scope changes

As most project managers know, an evil they encounter i.e. "The Scope Creep" which is usually their number one enemy who continually tries to take control, which is common practice in Middle East due to uneducated project owners or a decision taken on spur of a moment. (Chapman, 2004)

CHAPTER 7
METHODOLOGY

Methodology

7.1 Introduction

This chapter describes the methodology that was applied in attaining the aim of this research. Accordingly, the purpose and approach of the research were defined followed by the identifying the sample to be selected. A review of the suitability of the existing assessment tools was considered first before deciding to develop a new assessment tools exclusively for this research. Distribution of the questionnaire is finally described.

There are many ways in which the research process can be viewed. Many researchers have described the process simply by listing and explaining the research strategies, commonly known as research approaches. Other researchers gave a more comprehensive view on the subject. Moreover there are many options for research paradigms, strategies and detailed data collection. The diagram below, based on Saunders et al (2003) research process onion, demonstrates the approach taken, and that is then explained and justified throughout this chapter.

Figure 7.1. Chosen research method based on research process onion
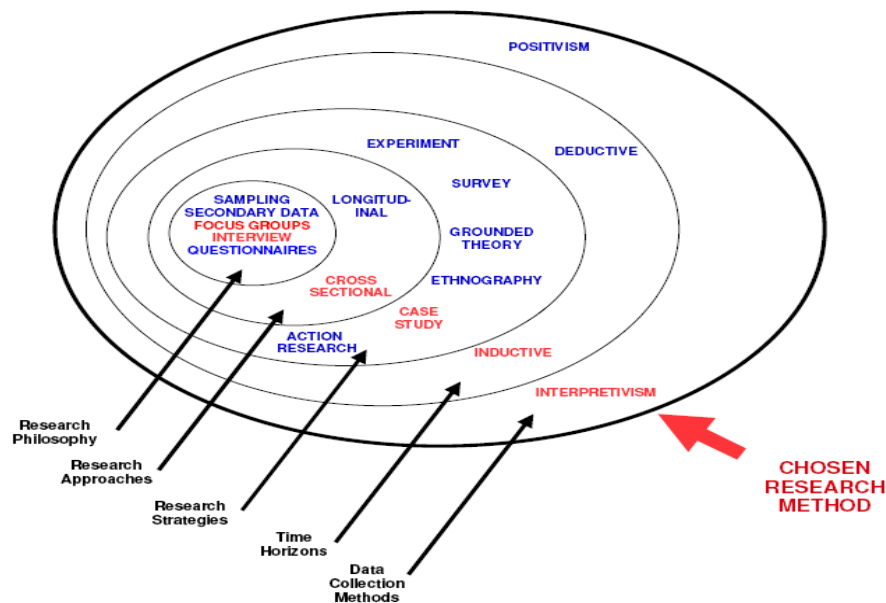
Source: Based on Saunders, Lewis and Thornhill 2003

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7.2 The Research Onion

A. Research Philosophy

The most important layer in the process onion relates to research philosophy. Accordingly, much of the literature reviewed on research paradigms and methodology suggested that choosing a research philosophy is a subjective matter. Fisher (2004) and Easter by-Smith et al (2002), amongst others, agree that in practice any research methods could actually be used.

From the research onion process, there are two choices for research philosophy which are interpretivism and positivism. A positivism stance, which is associated with quantitative research, was ruled out. Positivism searches for truth (Jankowicz, 2000). The positivist stance assumes that everything can be proved and known (Fisher 2004) and is very scientific in its approach.

The positivist researcher prefers to work with an observable social reality and that the end product of the research can be law-like generalizations similar to those produced by the physical and natural scientist (Remenyi et al et 1998). The researcher would be required to take the role of an objective analyst making detached assumptions about data collected in a value free manner (Saunders et al 2003).

Moreover the one more view of research philosophy is the realism. Saunders et al (2003) stated that realism is based n the belief that the reality exists that is independent of human thoughts and beliefs.

B. Research Approach

Research approach is the second layer of the research onion processes. Actually there are two main choices for the research approach which are classified into deductive and inductive. A deductive approach is consistent with developing a theory and testing it through research, whereas an inductive approach collects data to develop a theory (Saunders et al 2003). Also, induction is when a conclusion is drawn from past

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experience (Fisher 2004). Accordingly, by doing so, researcher get an understanding of the ways in which social world is being interpreted by people. In this dissertation the inductive method is used.

C. Research Strategy

Saunders et al (2003) defined the research strategy as the overall method of data collection. More over, Saunders et al (2003) stated that, research strategy sets out a plan of how the data would be gathered during the search.It should not be confused with research tactics, which involves the selection of the actual data collection tools or methods such as, questionnaire, interviews …etc (Saunders et al , 2003)

 A case study was chosen as the most appropriate research strategy. Saunders et al (2003) define a case study as "a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence

" This fits well with the author's intention to investigate a real life issue through a variety of data collecting methods. Supporting the case study strategy, Hartley (2004) suggests case studies also tend to be inductive as they piece together evidence to support theory development. Depth of understanding is important to the author. Morris and Wood (1991) and Fisher (2004) both suggest that case studies are more appropriate for an in depth understanding of a particular situation. Punch (1998) argues that while there may be a variety of specific purposes or research questions, the general objective of a case study is to develop as full an understanding of that case as possible.

D. Research purpose

Research strategy consider as the third layer of the onion process. Many researchers has classified the types of researchers in a different way and used the research purpose terminology to note to it (Collis and Hussey, 2003). Moreover research purpose can be classified into four types which are exploratory, descriptive, explanatory and predictive. (Collis and Hussey, 2003)

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7.3 Adoption of a Research Process

As the aim of the research is to study PMO current practices and measure PM awareness level in the Middle East. The research's philosophy direction was towards realism. Realism was needed in order to ensure that, a respectable amount of consistent information could be collected in a relatively enough period of time. Accordingly, to do so, interviews, case studies, survey were needed to measure the project management awareness and PMO implementation in the Middle East across government, semi government and private organizations from across the Middle East countries.

The study adopted an inductive approach. As mentioned above, the inductive approach involves gathering data and information, analyzing them and then from a theory.

During the planning of the research, it was decided that three data sets are required to cover the research strategy and to achieve the required aim of this research. Accordingly, the three data sets were case studies, survey and interviews.

A. Case studies:

Case studies were the most appropriate method for data collection. The use of case studies as was mentioned in research strategy that case study was chosen as the most appropriate research strategy (Saunders et al, 2003). Moreover Depth of understanding is important to the author, accordingly Morris and Wood (1991) and Fisher (2004) both suggest that case studies are more appropriate for an in depth understanding of a particular situation. Also this fits well with the author's intention to investigate a real issue through a variety of data collecting methods. (Saunders et al, 2003)

In this research four case studies were analyzed in detail of two different organizations where the practical experience has been generated by Project Managers through working in PMO's of both of them. In the two case studies the process of implementing PMO is discussed and the main challenges identified. Moreover another two case studies which are related to same organizations have discussed the communication as the main issue which is affecting the PMO implementation. From case studies, the organization's staff

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will be able to reflect on their experiences of the process, perhaps in the context of a major transformation of the organization. It gives the author the opportunity to understand the issues and tell a story.

B. Survey

Moreover, the use of the survey would enable to collect enough data within a reasonable time. The researcher is certain that a time will be well spent to develop the questionnaire, in spite of it was envisaged that a substantial amount of time would be required to develop the questionnaire.

C. Interviews

As stated by Saunders et al (2003) interviews are considered as one of research tactics, which involves the selection the actual data collection tools or method. From a selected sample, face to face interviews have been made with four project managers who have worked with PMO or other related departments in their organization. Moreover two interviews have been made with two heads of PMO.

7.4 Sample selection

Due to measure the current practices of PMO in Middle East, the sample included 45 organizations in UAE which were represented by either project mangers or professionals who were part of the project teams. Therefore, in order to expand the available sample group to include other countries in Middle East, 15 international organizations in private sector which are located in UAE and other Middle East countries have been involved in the sample. Accordingly, the sample contains 60 organizations from government, semi government and private sectors.

After careful considerations of the available organizations and available access into each of them, 16 of organizations representatives apologized to fill the questionnaire which was due to non availability of PMO or any related department. Accordingly the total available samples there were 44 organizations. Out of them 34 organizations are from

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UAE and 10 international organizations worked within other Middle East countries. Moreover, 2 organizations have been selected to develop the case studies. One organization represents the government sector and the second one represents the private sector which is an international organization working in other Middle East countries including UAE.

More over, 6 organizations from the sample have been selected to do a face to face interview which was represented by 4 project managers and 2 heads of PMO.

7.5 Design of Assessment Tool

The methodology approach is plural methodology (qualitative and quantitative). The logic behind using both methods is to complement one another and expand the depth and breadth of the knowledge to measure PMO current practices in the Middle East. Denscombe (2007) stated that through using plural methodologies, researchers can improve the accuracy, confidence and reliability of findings by using different methods to investigate the same subject.

Assessment Tool

Statistical Package for the Social Sciences is software used for survey authoring and deployment, Data Collection, data mining, text analytics, statistical analysis, and collaboration & deployment.

In today's data-driven world, the ability to analyze information to drive decision-making and solve problems is essential for success. SPSS has been used for the following in the dissertation:

- Forecast future trends to better plan organizational PMO strategies
- Analyze outcomes, such as PMOs implementation in Middle East
- Report results clearly and efficiently
- Understand which characteristics relate most closely
- Identify variables, discover relationships between variables, and predict future events

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A. Approach of Data Collection for Case study

As stated earlier by Saunders et al (2003), case studies consider as one of the most important research strategy. Because of the limitation articles of PMO implementation in Middle East and in order to understand deeply the current practices of implementing a PMO in Middle East. Two organizations have been selected to discuss their current practices in PMO implementation. The strongest areas were the reliable data and the ease of ability to access those organizations, and that due to the experience through working with those organizations in the PMO. Accordingly, data were extracted from the project monthly progress reports. Interviews with the associated project managers were also conducted to validate the observations.

- **The first case study (PMO implementation in A organization):**

This case study has discussed the implementation of PMO in A organization which summarizes the stages of the implementation and the relevant issues with it. (Details in Appendix B)

- **The Second case study (Communication)**

This case study has discussed the communication issue in A organization which considers one of the most challenges which affects the PMO implementation (Details in Appendix C)

- **The Third case study (PMO maturity in X Contractor)**

The third case study discusses the maturity level of PMO in X contractor. (Details in Appendix D)

- **The fourth case study (Lack of planning and change orders)**

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Last case study has discussed the lack of planning and variation orders which have a great affect on the performance of PMO in X contractor. (Details in Appendix E)

The first organization was A organization which represent one of government organizations which has been established recently to develop and organize the statistical work in Abu Dhabi in particular and United Arab Emirates in general. A organization therefore has an independent legal identity and full legal capacity to act in a manner that is consistent with the orientation towards sustainable development and strategic plans under the supervision and with full support of the federal government of the Emirate of Abu Dhabi.

The second organization was X contractor which represent one of the private organizations. X contractor is one of the world's leading groups of engineering and construction companies, a key player in facilities and operations management, and in the ownership, operation and maintenance of infrastructure. X has been active internationally for nearly 40 years, establishing a multicultural network that spans every continent. X has offices across 30 countries around the world.

B. The Questionnaire

The questionnaire was designed by the researcher, of which a full copy of the designed questionnaire is attached in Appendix A. The questionnaire was quantitative in nature. Accordingly, the questionnaire was designed to give a proper balance between being short, simple and comprehensive. This was one of the most important aspects of the design which ensured that sufficient interest is attracted among the respondents to participate in the survey while ensuring that the collected data is inclusive, beneficiary and reliable.

The developed questionnaire included 18 questions that were distributed across four sections. First section inquired about background information of the respondents and contained four questions which were included respondent name (optional), position, name of organization and the availability of PMO or any related department in the organization. The second Section aimed at measuring the awareness project management

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office respondents' respective organizations. This section included six questions as shown in below table.

No.	Instruction
2.1	PMO workshops
2.2	Job training
2.3	Regular meetings
2.4	PMO mission
2.5	PMO objectives
2.6	PMO is communication

The third section aimed at measuring the implementation level of project management office in Middle East. This section included 6 questions to obtain responses from respondents on the level of PMO implementation as shown in below table

No	Statement
3.1	Project identification
3.2	Project prioritization
3.3	Project planning tools
3.4	Projects monthly reports
3.5	Top management necessary decisions
3.6	Risk identification and mitigation plans

The last section included three questions. The main goal to get the feed backs with regard the maturity of project management office as shown in below table

No	Activity
4.1	PMO implements portfolio management
4.2	Quality measures
4.3	PMO performance

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C. The Questions of the Questionnaire

The questions of the questionnaire will serve both of quantitative and qualitative methods. Section 2, 3 and four included a combination of multiple choice questions and written answers. All the question were multiple choice questions, except if the answer is no, then the respondents will be asked to write the required justification.

In addition, in quantitative method, the questionnaire will include closed-ended questions such as the following:

- Is PMO mission clear?
- Is PMO communicating effectively with project owners to clarify their concerns?

While in qualitative method, the questionnaire and the interviews will be structured to include some open-ended questions such as the following:

- Do you have any further comment, suggestion or contribution relative to PMO performance?

In section 2 which is related to PMO awareness, the first three questions were mainly based on a 5 – point scales from never to always. The lower scale is never and the highest scale is always. While in section 3 which is related to PMO implementation, all the 6 questions were mainly based on a 5 – point scales from strongly disagree to strongly agree. The lower scale is strongly disagree and the highest scale is strongly agree.

D. Interview questionnaire

The interview questions were put forward to Project Managers having ample experience in the region and working in the PMO. The Project Managers were kind enough to answer them thoroughly and which gave an insight in the organizations and their PMOs. Following questions were asked to them in a face to face interview:

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- **Question 1:** Describe how you've implemented portfolio management across an organization. What tools have you used to manage the portfolio?

- **Question 2:** Describe a recent experience integrating different schedules across related projects or programs. What is your approach to manage and track key milestones and deliverables across a program?

- **Question 3:** How do you manage new project requests and determine the organization's resource capacity?

- **Question 4:** Describe a previous experience where you were responsible for process quality assurance. How do you ensure projects within the portfolio are following tollgates and obtain the necessary approvals to proceed?

- **Question 5:** Describe your experiences managing financial budgets. What was the scope and processes used to manage program or portfolio forecasts?

- **Question 6:** Describe your experience implementing a change control board across a program or portfolio?

- **Question 7:** Describe an experience where you were responsible for coaching or training others on project management techniques.

- **Question 8:** What are the main challenges you have faced in managing projects?

The questions were related to the Organizations and their implementation of PMOs. It included scheduling, project requests, quality, budgeting, training and challenges. These questions helped to develop the case studies and along with it identify the problems faced by Project Managers. Many question's answer in the questionnaire needed elaboration; the interview questions help them to elaborate and understand the project management environment in the Middle East.

7.6 Distribution of questionnaire

The survey has been distributed to randomly sample size of 60 respondents (project managers, professionals and line managers) in 45 different organizations in UAE. 44 respondents have answered the questionnaire 34 organizations in UAE and 10 international organizations worked within other Middle East countries, while the others Implementation of PMO in Middle East

apologized and did not proceed to answer the questionnaire because their organizations don't have a PMO or any other related department. Some of the respondents have mentioned in their answers that they don't have PMO but they have similar departments which perform the same mission of PMO with other names such as:

1. Project planning department
2. Project cost control department
3. Project control department
4. Control, planning and cost department
5. Planning department
6. Project auditing division

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CHAPTER 8
RESULT

Result

8.1 Introduction

This chapter summarizes the main outcome of the survey which includes the main results of the survey were presented by table and figures. The results were categorized as response rate, general information (first section) , PMO awareness (second section), PMO implementation (third section) and PMO maturity (forth section).

All the mentioned results of survey has been generated by using SPSS (statistic package social science)

8.2 Response Rate

As stated in chapter 7, the questionnaire was distributed to 60 organizations from government, semi government and private sector. From this 60 questionnaire, 45 were distributed to government, semi government and 15 questionnaires were distributed to international organizations in private sector which is located in UAE and other Middle East countries. However, 16 of organizations representatives apologized to fill the questionnaire and that was because of non existence of PMO or any related department. Accordingly the total available sample was 44 organizations. 34 organizations in UAE and 10 international organizations worked within Middle East countries. This has been explained in below table:

Table 8.1

Organisation	Target	Actual	Actual %
Government	18	11	61%
Semi government	27	23	85%
Private	15	10	67%
Total	66	44	73%

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Graph 8.1

Number of respondents

	Government	Semi government	Private	Total
Respondents Target	18	27	15	60
Respondents Actual	11	23	10	44

Graph 8.2

Actul respondents %

- Government — 61%
- Semi government — 85%
- Private — 67%
- Total — 73%
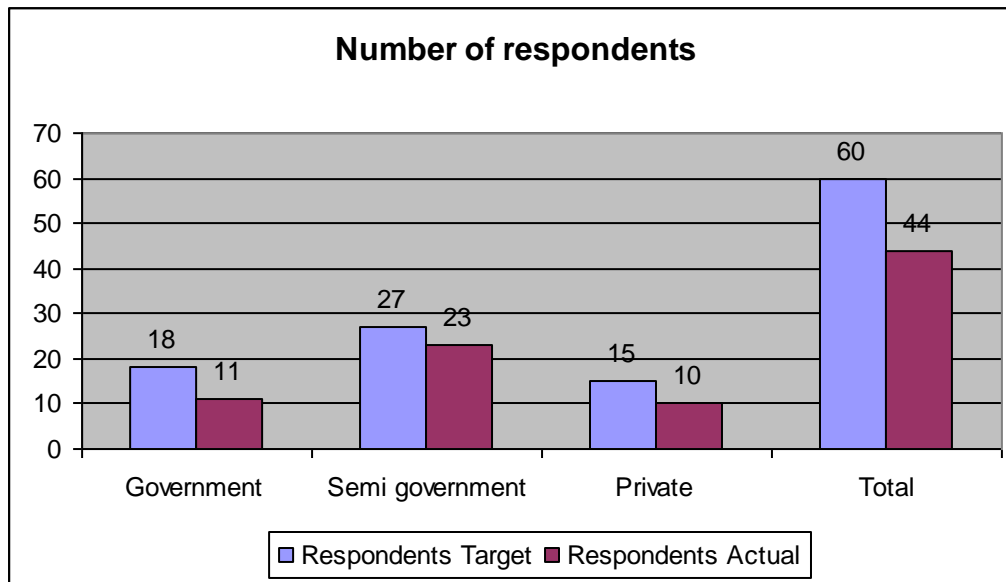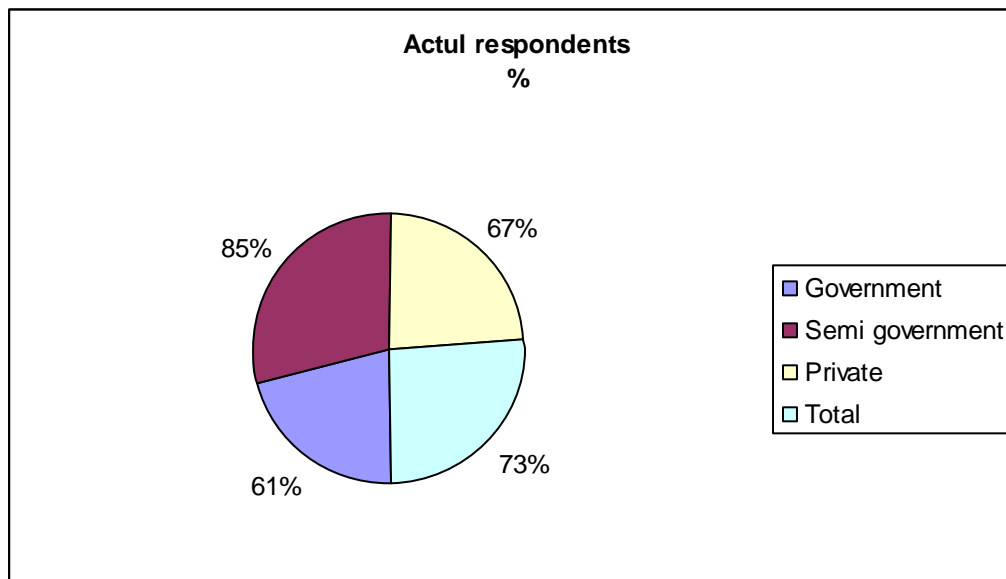
As shown from above data, the total response rate was 73%. Semi government organisations have the highest response rate of 85%, while the government organizations have the lowest response rate of 61%. However the overall response rate was semi high.

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8.3 General information (First section)

As stated in chapter 8, section one of the survey contained general information about the respondents respondent name/gender (optional), position, name of organization (already represented in above graphs) and the availability of PMO or any related department in the organization. Those data have been presented in below table and figure.

Table 8.2

Position	No. of Respondents
Project / Site manager	15
Executive manager	3
PMO manager	4
PMO team	5
Professionals/ project team	11
Other	6

Graph 8.3
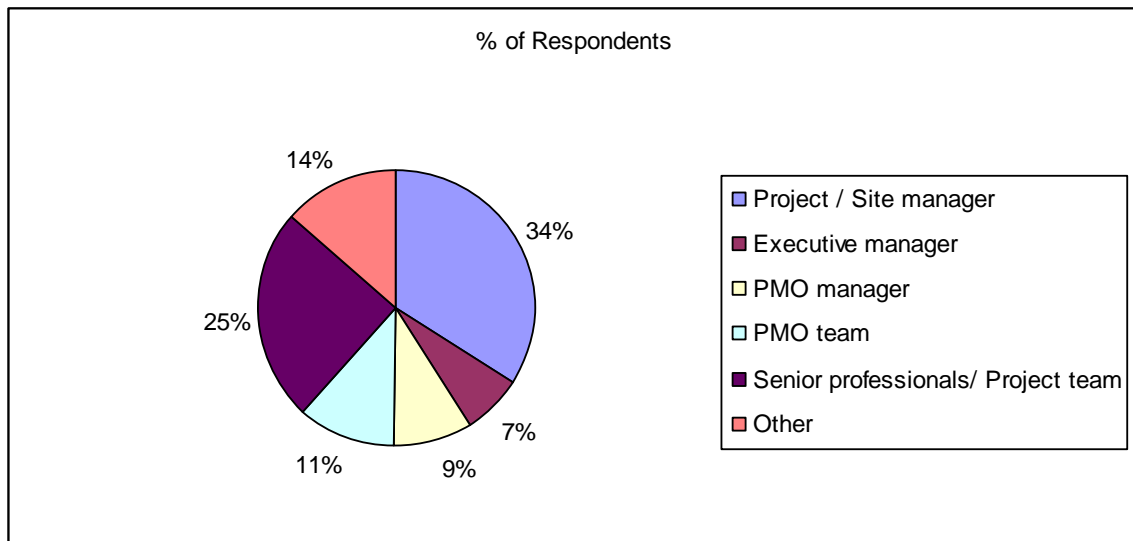
From above table no. 8.2 and graph no. 8.3, it can be observed, that most of the respondents were working as project / site managers with a highest response rate of 34% followed by senior professionals who were part of project team with a response rate of 25%. On the other hand, the lower response rate of 7% was by executive managers

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Table 8.3

Gender	No. of Respondents
Female	5
Male	39

Graph 8.4

% of Respondents

11%

89%
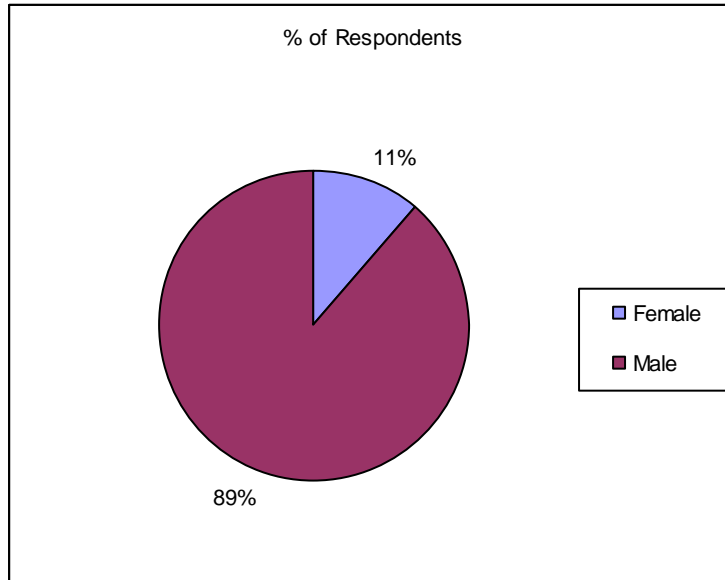
Female
Male

It was clearly observed from above table no. 8.3 and gragh no. 8.4 that female represent only 11% of total respondents.

8.4 PMO Awareness (Second section)

As stated in chapter 8, the second section is related to PMO awareness, this section have included 6 questions. The values in table 8.4 are related to 6 questions scales as the following:

- Yes, always = 4 (the highest scale)
- Often = 3
- Unsure, Some times = 2
- Seldom = 1
- No, never = 0 (the lower scale)

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Table 8.4

Respondents No	Awareness							
	1	**2**	**3**	**4**	**5**	**6**	**∑**	**Mean**
1	*2*	0	4	2	2	2	12	2
2	4	4	4	0	0	0	12	2
3	0	0	4	4	4	4	16	2.67
4	0	2	2	0	0	0	4	0.67
5	0	0	2	2	2	2	8	1.333
6	0	0	2	4	4	4	14	2.333
7	2	1	3	2	2	2	12	2
8	0	2	3	0	0	0	5	0.833
9	1	2	2	2	2	4	13	2.167
10	2	2	3	4	4	4	19	3.167
11	4	3	4	4	4	4	23	3.833
12	0	0	4	0	0	4	8	1.333
13	0	0	1	0	0	0	1	0.1667
14	2	1	1	2	0	0	6	1
15	0	0	0	2	2	0	4	0.667
16	0	0	0	2	2	2	6	1
17	3	3	3	4	4	4	21	3.5
18	4	4	4	4	4	4	24	4
19	0	4	4	4	4	4	20	3.333
20	2	3	4	2	2	4	17	2.833
21	2	3	4	4	4	4	21	3.5
22	2	4	3	4	4	4	21	3.5
23	3	3	4	4	4	4	22	3.667
24	3	2	4	4	4	4	21	3.5
25	3	1	1	4	4	4	17	2.833
26	1	2	3	0	0	4	10	1.667
27	4	4	4	4	4	4	24	4
28	1	2	3	4	4	4	18	3
29	*2*	3	4	0	4	4	17	2.833
30	4	4	4	2	2	4	20	3.333
31	4	4	4	4	4	4	24	4
32	3	3	3	4	4	2	19	3.167
33	4	4	4	4	4	4	24	4
34	4	4	4	4	4	4	24	4
35	4	4	4	4	4	4	24	4
36	4	4	4	4	4	4	24	4
37	4	4	4	2	2	4	20	3.333
38	3	4	4	4	4	4	23	3.833
39	4	4	4	4	4	4	24	4
40	4	4	4	2	2	4	20	3.333
41	0	0	0	0	0	0	0	0
42	2	2	3	4	4	4	19	3.16
43	1	2	4	4	2	4	17	2.83
44	3	3	2	4	4	2	18	3

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The survey result has been analyzed by using SPSS. Many different way of analysis has been generated; the first way is frequency distribution of assigned values to the Awareness of 44 respondents in the Middle East

Table 8.5

Frequency Table

Awareness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	1	2.3	2.3	2.3
	.17	1	2.3	2.3	4.5
	.67	1	2.3	2.3	6.8
	.67	1	2.3	2.3	9.1
	.83	1	2.3	2.3	11.4
	1.00	2	4.5	4.5	15.9
	1.33	2	4.5	4.5	20.5
	1.67	1	2.3	2.3	22.7
	2.00	3	6.8	6.8	29.5
	2.17	1	2.3	2.3	31.8
	2.33	1	2.3	2.3	34.1
	2.67	1	.3	2.3	36.4
	2.83	1	2.3	2.3	38.6
	2.83	3	6.8	6.8	45.5
	3.00	2	4.5	4.5	50.0
	3.16	1	2.3	2.3	52.3
	3.17	2	4.5	4.5	56.8
	3.33	4	9.1	9.1	65.9
	3.50	4	9.1	9.1	75.0
	3.67	1	2.3	2.3	77.3
	3.83	2	4.5	4.5	81.8
	4.00	8	18.2	18.2	100.0
	Total	44	100.0	100.0	

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Graph 8.5
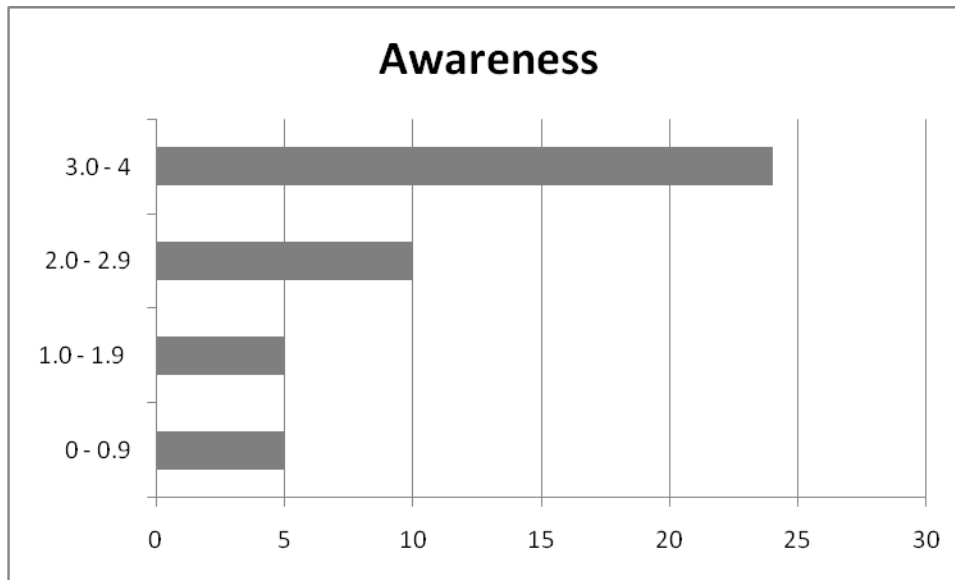
8.5 PMO implementation (Third section)

The third section is related to PMO implementation, this section have included 6 questions. The values in table 8.5 are related to 6 questions scales as the following:

- Strongly agree = 4 (the highest scale)
- Agree = 3
- Neutral = 2
- Disagree = 1
- Strongly disagree = 0 (the lower scale)

Table 8.6

Implementation								
Respondents No	**7**	**8**	**9**	**10**	**11**	**12**	**∑**	**Mean**
1	0	0	3	4	3	2	12	2
2	3	3	3	3	3	3	18	3
3	3	3	3	3	2	3	17	2.833
4	3	3	3	2	3	3	17	2.833
5	2	0	2	1	2	2	9	1.5

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6	3	3	3	3	3	3	18	3
7	3	3	3	4	3	4	20	3.333
8	2	2	4	4	4	4	20	3.333
9	2	3	3	4	3	2	17	2.833
10	2	2	3	3	3	3	16	2.667
11	3	3	4	1	1	2	14	2.333
12	2	3	2	3	4	3	17	2.833
13	3	3	3	3	3	3	18	3
14	3	4	4	4	4	4	23	3.833
15	3	3	3	3	2	2	16	2.667
16	3	1	2	2	2	0	10	1.667
17	1	3	3	3	3	1	14	2.333
18	4	3	4	4	4	4	23	3.833
19	4	3	3	4	4	4	22	3.667
20	3	3	3	4	3	2	18	3
21	3	3	3	2	3	2	16	2.667
22	3	3	3	4	4	3	20	3.333
23	2	3	4	3	3	4	19	3.167
24	3	3	2	3	4	3	18	3
25	3	2	3	3	2	3	16	2.667
26	2	3	2	3	2	2	14	2.333
27	4	4	4	4	4	1	21	3.5
28	2	2	3	2	3	3	15	2.5
29	3	4	4	4	4	4	23	3.833
30	3	3	3	3	2	4	18	3
31	3	4	4	4	4	4	23	3.833
32	3	3	3	3	2	3	17	2.833
33	4	4	4	4	4	4	24	4
34	4	4	4	4	4	4	24	4
35	4	4	4	4	4	4	24	4
36	4	4	4	4	4	4	24	4
37	4	4	3	4	4	4	23	3.833
38	4	3	3	4	4	4	22	3.667
39	4	3	4	4	4	4	23	3.833
40	3	3	3	3	2	4	18	3
41	0	0	2	4	2	4	12	2
42	2	3	1	3	2	2	13	2.16
43	2	3	3	4	3	3	18	3
44	3	3	3	3	3	3	18	3

As mentioned above, the survey result has been analyzed by using SPSS. Many different way of analysis has been generated; the first way is frequency distribution. In this case the frequency distribution will be assigned values to implementation of 44 respondents in the Middle East

Implementation of PMO in Middle East

Table 8.7

Implementation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.50	1	2.3	2.3	2.3
	1.67	1	2.3	2.3	4.5
	2.00	2	4.5	4.5	9.1
	2.16	1	2.3	2.3	11.4
	2.33	3	6.8	6.8	18.2
	2.50	1	2.3	2.3	20.5
	2.67	4	9.1	9.1	29.5
	2.83	5	11.4	11.4	40.9
	3.00	9	20.5	20.5	61.4
	3.17	1	2.3	2.3	63.6
	3.33	3	6.8	6.8	70.5
	3.50	1	2.3	2.3	72.7
	3.67	2	4.5	4.5	77.3
	3.83	6	13.6	13.6	90.9
	4.00	4	9.1	9.1	100.0
	Total	44	100.0	100.0	

Graph 8.6

Implementation of PMO in Middle East
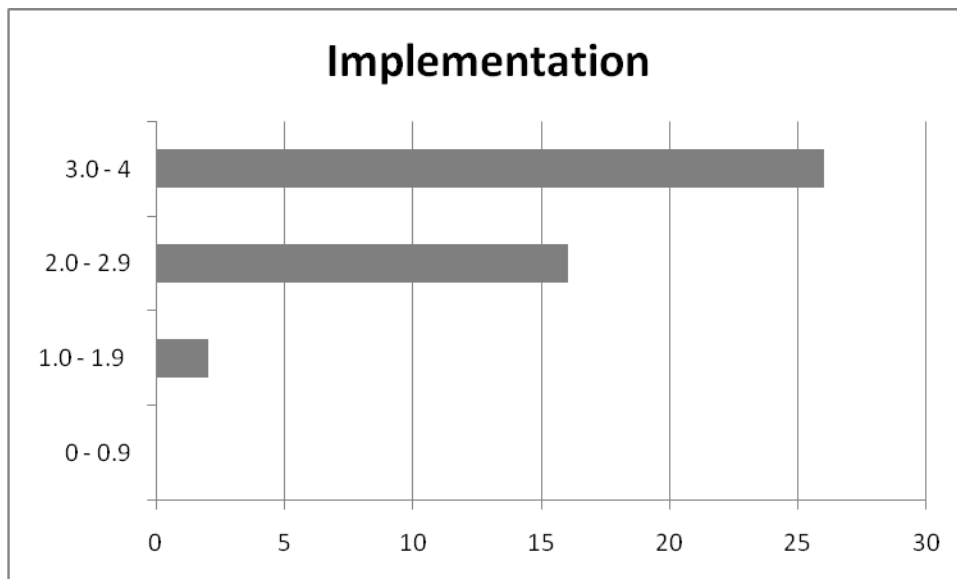
8.6 PMO maturity (fourth section)

The last section is related to PMO maturity, this section have included 2 end closed questions. The values in table 8.6 are related to 2 questions scales as the following:

- Yes = 4 (the highest scale)
- Unsure = 2
- No = 0 (the lowest scale)

Table 8.8

respondents No	Maturity			
	13	14	∑	Mean
1	2	0	2	1
2	4	4	8	4
3	2	4	6	3
4	0	0	0	0
5	0	0	0	0
6	2	2	4	2
7	2	2	4	2
8	4	4	8	4
9	0	0	0	0
10	4	4	8	4
11	4	4	8	4
12	0	0	0	0
13	0	0	0	0
14	4	4	8	4
15	0	0	0	0
16	0	0	0	0
17	4	4	8	4
18	4	0	4	2
19	4	0	4	2
20	2	4	6	3
21	0	4	4	2
22	4	4	7	4
23	4	4	8	4
24	4	4	8	4
25	4	4	8	4
26	0	4	4	2
27	2	4	6	3
28	4	0	4	2
29	2	2	4	2
30	2	4	6	3
31	4	4	8	4
32	0	4	4	2
33	4	4	8	4
34	4	4	8	4
35	4	4	8	4
36	4	4	8	4

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37	2	4	6	3
38	4	0	4	2
39	4	0	4	2
40	2	4	6	3
41	2	4	6	3
42	2	4	6	3
43	2	2	4	2
44	4	4	8	4

As mentioned above, the first way in generating results by SPSS was the frequency distribution. In this case, the frequency distribution will be assigned values to maturity of 44 respondents in the Middle East as shown in below table

Table 8.9

Maturity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	7	15.9	15.9	15.9
	1.00	1	2.3	2.3	18.2
	2.00	12	27.3	27.3	45.5
	3.00	8	18.2	18.2	63.6
	3.50	1	2.3	2.3	65.9
	4.00	15	34.1	34.1	100.0
	Total	44	100.0	100.0	

Graph 8.6

Implementation of PMO in Middle East
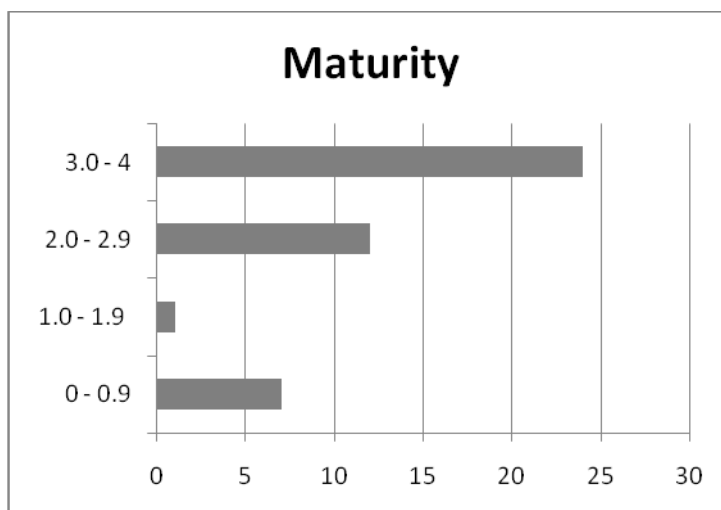
8.7 Summary of the Interviews

Most of the interviews were carried out of Project Managers of reputable multi national companies. The interviewee gave detailed answer to questions poised to them (Details in appendix F). Most of the tools used by project managers were pre developed soft wares mostly used in the industry of esteemed software developers. Most of the project managers mentioned report generation by these softwares of scheduling and cost.

Dedicated resources and adding Quality Checks on the scope of job or resources of the project, in accordance at the quality procedures are discussed. Methodology for tool and equipment management, which includes routine preventative maintenance and repair handling, engineering modifications, recording and analysis of equipment failure, and recording and reporting of asset location and history are some of the topics duely highlighted in the interview.

In length Experience of integrating different schedules across related projects or programs by the project managers were enquired along with what approach to manage and track key milestones and deliverables across a program were undertaken.

 How new project requests were managed, quality assurance approved. Management of financial budgets was answered with great hesitation by the project managers.

CHAPTER 9
ANALYSIS

Implementation of PMO in Middle East

9.1 Introduction

This chapter analyses and discusses the main outcome of the survey. This is done by analyzed the gathered data of quantitative (Survey- Closed-ended questions) by using Statistical Package for Social Sciences (SPSS). Also, SPSS will be used deeply to determine the necessary main relationships and considerations between section 2 (PMO awareness), section 3 (PMO implementation) and section 4 (PMO maturity). Then some main relation will be identified between variable across the 3 sections.

After defined the main relationships and considerations between PMO awareness, implementation and maturity; the main findings will be discussed which are Communication, Planning, Training, portfolio management and project management quality. In addition, interviews and case studies analysis will be used in discussing the main findings which has been noticed while doing all the mentioned analysis.

9.2 PMO awareness and PMO implementation

The survey result has been analyzed by using SPSS. To determine the main relation between awareness and implementation, Correlation analysis has been generated as shown in below table.

Table 9.1

Correlation between Awareness and Implementation

Correlations

		Awareness	Implementation
Awareness	Pearson Correlation	1	.493**
	Sig. (2-tailed)		.001
	N	44	44
Implementation	Pearson Correlation	.493**	1
	Sig. (2-tailed)	.001	
	N	44	44

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

Implementation of PMO in Middle East

The above correlations table displays Pearson correlation coefficients between awareness and implementation, significance values, and the number of cases with non-missing values (N) which is represents the whole 44 respondents. The values of the correlation coefficient should range from -1 to 1 with positive or negative sign which indicates the direction of the relationship (positive or negative). In this case, the value of the correlation coefficient is 0.493 with positive sign which indicates the positive direction of the relationship between awareness and implementation. Also, in this case the absolute value of the correlation coefficient indicates moderate to semi significant positive relationships. The correlation coefficients on the main diagonal are always 1, because each variable has a perfect positive linear relationship with itself.

The significance of each correlation coefficient is also displayed in the above correlation table. The significance level (or p-value) is the probability of obtaining results as extreme as the one observed. In this case the p-value is .001 (less than 0.05). So not accepting the correlation between PMO awareness and PMO implementation is 1/1000. This is vey low. Hence, the correlation is significantly high between awareness and implementation linearly.

In addition, the below graph is explain the regression between Awareness and Implementation of 44 respondents in the Middle East. Also it shows the positive direction of the relationship

Implementation of PMO in Middle East

Graph 9.1
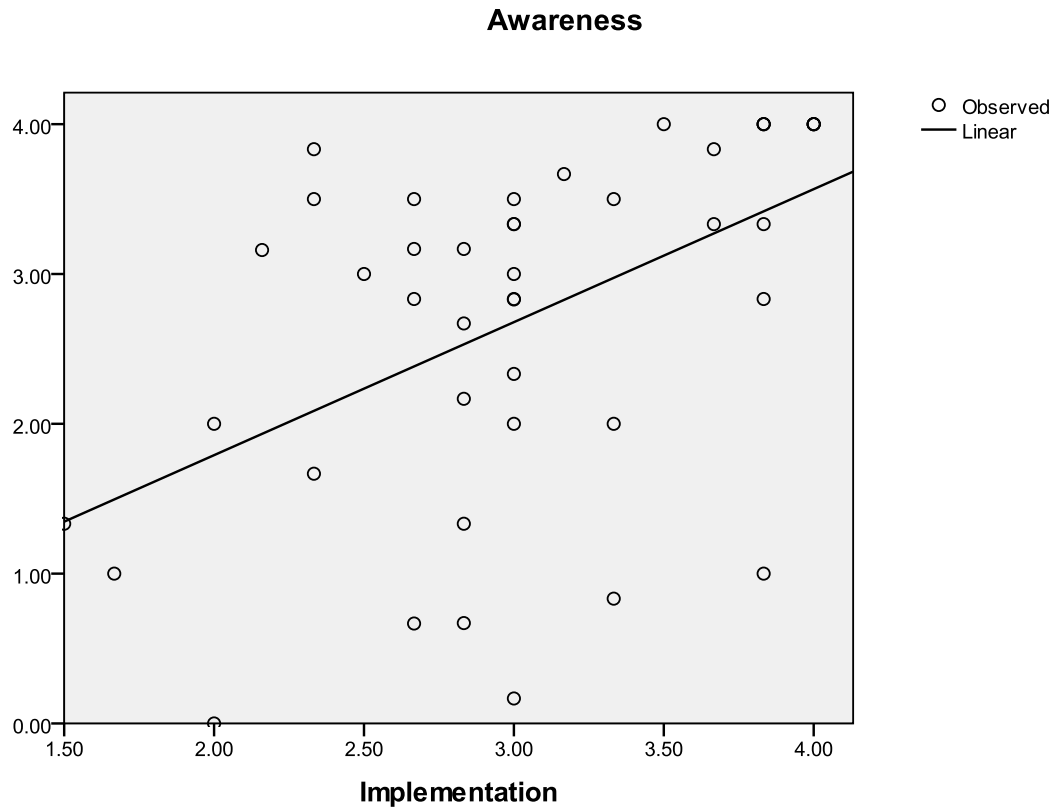
Awareness

9.3 PMO awareness and PMO maturity

Table 9.2

Correlation between Awareness and Maturity

Correlations

		Awareness	Maturity
Awareness	Pearson Correlation	1	.551**
	Sig. (2-tailed)		.000
	N	44	44
Maturity	Pearson Correlation	.551**	1
	Sig. (2-tailed)	.000	
	N	44	44

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

Implementation of PMO in Middle East

The above correlations table displays pearson correlation coefficients between awareness and maturity. In this case, the value of the correlation coefficient is 0.551 with positive sign which indicates the positive and significant direction of the relationship between awareness and implementation.

The significance of each correlation coefficient is also displayed in the above correlation table. In this case the p-value is .000 (less than 0.05). Accordingly, the correlation is significant and the two variables are linearly related.

Also, the below graph is explain the regression between awareness and maturity of 44 respondents in the Middle East. Also it shows the positive direction of the relationship

PMO_maturity

Implementation of PMO in Middle East
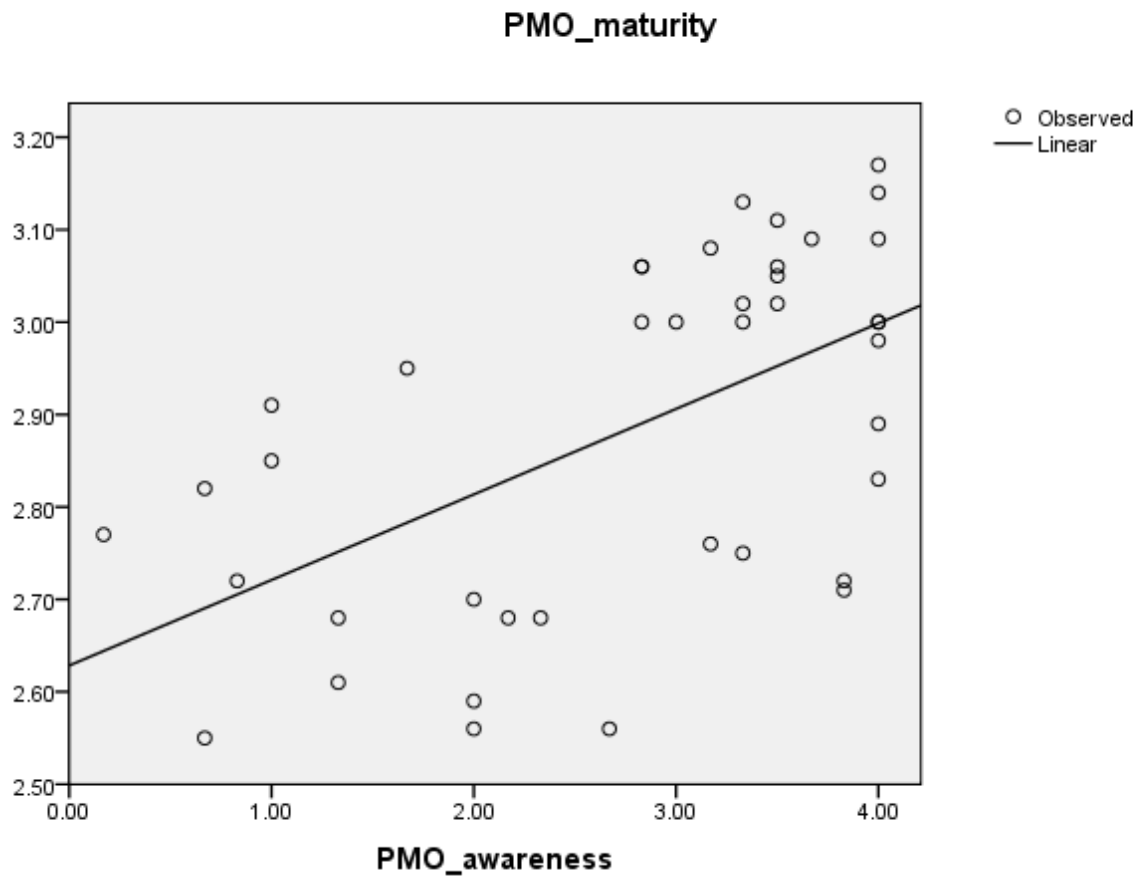
9.4 PMO Maturity and Implementation

Table 9.3

Correlation between maturity and Implementation

Correlations

		Maturity	Implementation
Maturity	Pearson Correlation	1	.391**
	Sig. (2-tailed)		.009
	N	44	44
Implementation	Pearson Correlation	.391**	1
	Sig. (2-tailed)	.009	
	N	44	44

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

Moreover, the below graph is explain the regression between implementation and maturity of 44 respondents in the Middle East. Also it shows the positive direction of the relationship
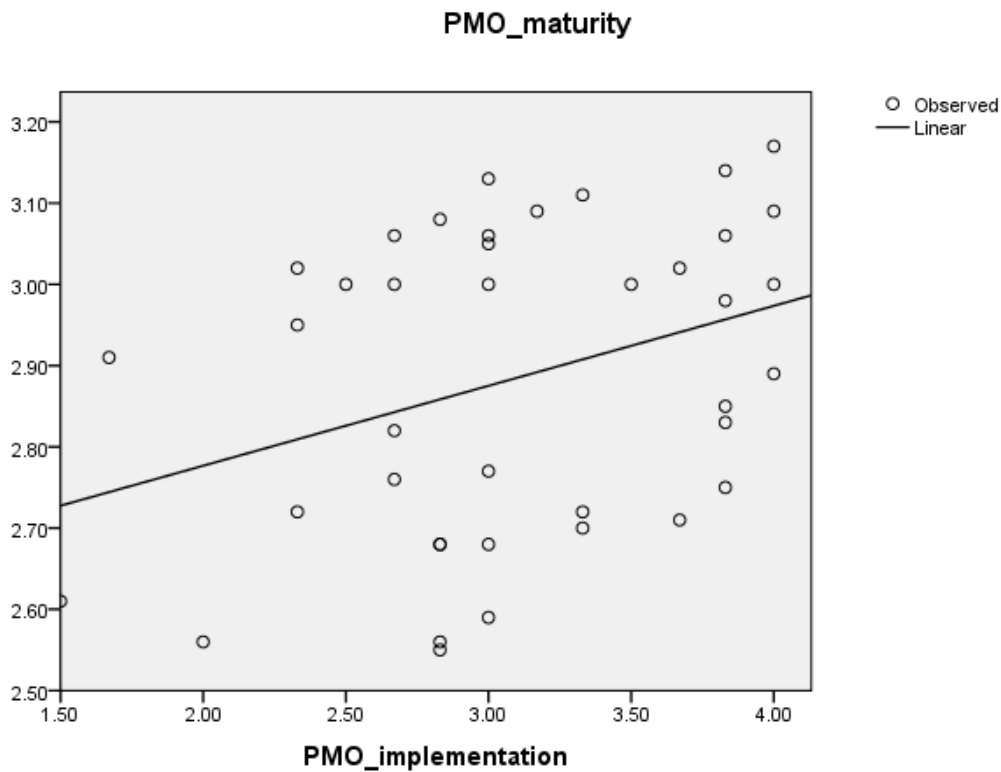
Implementation of PMO in Middle East

9.5 PMO awareness, implementation and maturity

Table 9.4

Correlation between Awareness, Maturity and Implementation

Correlations

		Awareness	Implementation	Maturity
Awareness	Pearson Correlation	1	.493[**]	.551[**]
	Sig. (2-tailed)		.001	.000
	N	44	44	44
Implementation	Pearson Correlation	.493[**]	1	.391[**]
	Sig. (2-tailed)	.001		.009
	N	44	44	44
Maturity	Pearson Correlation	.551[**]	.391[**]	1
	Sig. (2-tailed)	.000	.009	
	N	44	44	44

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

Implementation of PMO in Middle East

9.6 Analysing of correlation for all variables – Table 9.5

		Workshop	Training	Meetings	Mission	Objectives	Communication	Identification	Priorities	Roadmap	Reports	Decisions	Planning	Management	Quality
Workshop	Pearson Correlation	1	.779**	.560**	.440**	.459**	.412**	.447**	.487**	.497**	.251	.248	.289	.560**	.485**
	Sig. (2-tailed)		.000	.000	.003	.002	.005	.002	.001	.001	.101	.104	.057	.000	.001
	N	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Training	Pearson Correlation	.779**	1	.661**	.377*	.435**	.454**	.566**	.597**	.507**	.332*	.434**	.365*	.510**	.361*
	Sig. (2-tailed)	.000		.000	.012	.003	.002	.000	.000	.000	.028	.003	.015	.000	.016
	N	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Meetings	Pearson Correlation	.560**	.661**	1	.318*	.389**	.629**	.300*	.436**	.348*	.244	.403**	.309*	.370*	.239
	Sig. (2-tailed)	.000	.000		.035	.009	.000	.048	.003	.021	.111	.007	.042	.013	.118
	N	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Mission	Pearson Correlation	.440**	.377*	.318*	1	.887**	.613**	.339*	.246	.249	.035	.119	.007	.496**	.215
	Sig. (2-tailed)	.003	.012	.035		.000	.000	.024	.107	.103	.821	.440	.966	.001	.161
	N	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Objectives	Pearson Correlation	.459**	.435**	.389**	.887**	1	.691**	.369*	.276	.290	.035	.154	.036	.459**	.182
	Sig. (2-tailed)	.002	.003	.009	.000		.000	.014	.070	.056	.821	.318	.816	.002	.236
	N	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Communicaion	Pearson Correlation	.412**	.454**	.629**	.613**	.691**	1	.263	.344*	.096	.108	.172	.027	.258	.180
	Sig. (2-tailed)	.005	.002	.000	.000	.000		.084	.022	.535	.486	.265	.859	.091	.242
	N	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Identification	Pearson Correlation	.447**	.566**	.300*	.339*	.369*	.263	1	.691**	.461**	.185	.411**	.317*	.236	.041
	Sig. (2-tailed)	.002	.000	.048	.024	.014	.084		.000	.002	.229	.006	.036	.123	.793
	N	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Priorities	Pearson Correlation	.487**	.597**	.436**	.246	.276	.344*	.691**	1	.504**	.360*	.475**	.328*	.244	.329*
	Sig. (2-tailed)	.001	.000	.003	.107	.070	.022	.000		.000	.016	.001	.030	.111	.029
	N	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Roadmap	Pearson Correlation	.497**	.507**	.348*	.249	.290	.096	.461**	.504**	1	.372*	.471**	.439**	.513**	.156
	Sig. (2-tailed)	.001	.000	.021	.103	.056	.535	.002	.000		.013	.001	.003	.000	.311
	N	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Reports	Pearson Correlation	.251	.332*	.244	.035	.035	.108	.185	.360*	.372*	1	.653**	.487**	.330*	.120
	Sig. (2-tailed)	.101	.028	.111	.821	.821	.486	.229	.016	.013		.000	.001	.028	.438
	N	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Decisions	Pearson Correlation	.248	.434**	.403**	.119	.154	.172	.411**	.475**	.471**	.653**	1	.451**	.423**	-.068
	Sig. (2-tailed)	.104	.003	.007	.440	.318	.265	.006	.001	.001	.000		.002	.004	.662
	N	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Planning	Pearson Correlation	.289	.365*	.309*	.007	.036	.027	.317*	.328*	.439**	.487**	.451**	1	.473**	.136
	Sig. (2-tailed)	.057	.015	.042	.966	.816	.859	.036	.030	.003	.001	.002		.001	.380
	N	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Management	Pearson Correlation	.560**	.510**	.370*	.496**	.459**	.258	.236	.244	.513**	.330*	.423**	.473**	1	.355*
	Sig. (2-tailed)	.000	.000	.013	.001	.002	.091	.123	.111	.000	.028	.004	.001		.018
	N	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Quality	Pearson Correlation	.485**	.361*	.239	.215	.182	.180	.041	.329*	.156	.120	-.068	.136	.355*	1
	Sig. (2-tailed)	.001	.016	.118	.161	.236	.242	.793	.029	.311	.438	.662	.380	.018	
	N	44	44	44	44	44	44	44	44	44	44	44	44	44	44

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9.6 Analysing the fit of regression model for variables

Analysing the fit of regression model for all variables has been done across the 3 sections by using SPSS. This analysis has been done to identify the dependency of independent variable (factors of awareness) affecting the dependent variable i.e. implementation and maturity. The following analysis using SPSS will illustrate the relation between the attributes affecting PMO maturity and implementation in the Middle East which will be explained later in this chapter.

The main Analysing the fit of regression model has been shown in below tables as the following:

A. Analysing the Fit of Regression Model between project prioritization in PMO implementation section and other variables in PMO awareness section

Table 9.6 and 9.7 shows that prioritizing project with project owners is affected by awareness factors like workshop awareness, job training, communicate with project owners, regular meeting, clear mission and objective

Table 9.6

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective[a]	.	Enter

a. All requested variables entered.

Table 9.7

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.605[a]	.366	.263	.86008

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Model	Variables Entered	Variables Removed	Method
1	Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective[a]	.	Enter

a. Predictors: (Constant), Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective

From above table, the six independent variables in the regression model account for 36.6 percent of the total variation in PMO implementation. The higher the R-squared statistic, the better the model fits our data. Hence the independent variables or factors of awareness like workshop awareness, communication with project owner, clear mission, regular meeting, job training and clear objectives affect the factor of prioritizing project with project owner which helps in implementation of PMO strongly. The lower the adjusted R square value (in above analysis 0.2) means that there are few other external factor affecting prioritizing project with the project owner. It is well known that external factors like political, social and environment influence identification of project prioritization.

Table 9.8

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.811	6	2.635	3.562	.007[a]
	Residual	27.370	37	.740		
	Total	43.182	43			

a. Predictors: (Constant), Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective

b. Dependent Variable: Prioritise_project_with_project_owners

The test of significance for the F-statistic measures the probability that none of the independent variables in the model are correlated with the dependent variable beyond sampling error. Hence the F statistics also proves that there is strong influence of the independent variable analyzed affects prioritizing project with project owners linearly.

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The F significance statistic is of limited utility because of its assumptions: most regression models will report a statistically significant F-statistic even if the fit of the regression model as measured by the R-squared statistic is very low. Hence the F statistic measure is not analysed in other regression fit but the SPSS results are attached for reference.

Table 9.9

Coefficients[a]

Model	Un standardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	1.810	.378		4.794	.000
Workshops_increase_awareness	.035	.139	.055	.255	.800
Conducts_job_training	.341	.153	.520	2.235	.032
Regualr_meeting_discuss_progress	.007	.166	.009	.043	.966
Clear_mission	.014	.183	.022	.075	.940
Clear_objective	-.054	.200	-.084	-.270	.789
Communicate_with_project_owners	.082	.143	.124	.568	.573

a. Dependent Variable: Prioritise_project_with_project_owners

B. Analysing the Fit of Regression Model between monthly report for projects progress and related risks in PMO implementation section and other variables in PMO awareness section

Table 9.10 and 9.11 explains that monthly report for projects progress and related risks affected by awareness factors like workshop awareness, job training, communicate with project owners, regular meeting, clear mission and objective.

Table 9.10

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective[a]	.	Enter

a. All requested variables entered.

Table 9.11

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.358[a]	.128	-.013	.82887

a. Predictors: (Constant), Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective

The six independent variables in the regression model account for 12.8 percent of the total variation in PMO explaining progress and risk." The higher the R-squared statistic, the better the model fits our data. In this case, the model "modestly" fits the data. Hence the independent variables or factors of awareness like workshop awareness, communication with project owner, clear mission, regular meeting, job training and clear objectives are the only factors which affected the factor of monthly report for projects progress and related risks which helps in implementation of PMO semi strongly. The adjusted R square value (in above analysis -.013) means that there are no other external factors affecting monthly report for projects progress and related risks.

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Table 9.12

ANOVA^b

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.739	6	.623	.907	.500^a
	Residual	25.420	37	.687		
	Total	29.159	43			

a. Predictors: (Constant), Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective

b. Dependent Variable: MonthlyReport_explains_progress_and_risk

Table 9.13

Coefficients^a

		Un standardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.908	.364		7.993	.000
	Workshops_increase_awareness	.007	.134	.014	.053	.958
	Conducts_job_training	.184	.147	.341	1.249	.219
	Regualr_meeting_discuss_progress	.041	.160	.063	.258	.798
	Clear_mission	.020	.177	.038	.114	.910
	Clear_objective	-.099	.193	-.188	-.512	.612
	Communicate_with_project_owners	.008	.138	.014	.055	.956

a. Dependent Variable: MonthlyReport_explains_progress_and_risk

Implementation of PMO in Middle East

C. Analysing the Fit of Regression Model between projects planning and related in PMO implementation section and other variables in PMO awareness section

Table 9.14

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objectivea		. Enter

a. All requested variables entered.

Table 9.15

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.606[a]	.367	.264	.61961

a. Predictors: (Constant), Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective

From above table the six independent variables in the regression model account for 36% percent of the total variation in PMO implementation affecting projects planning. Accordingly, in this case, the model fits data strongly. Hence the independent variables or factors of awareness like workshop awareness, communication with project owner, clear mission, regular meeting, job training and clear objectives affect the factor of projects planning which helps in implementation of PMO strongly. The adjusted R square value

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(in above analysis 0.26) means that there are other external factor affecting projects planning.

Table 9.16

ANOVAb

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	8.227	6	1.371	3.572	.007a
Residual	14.205	37	.384		
Total	22.432	43			

a. Predictors: (Constant), Communicate_with_project_owners, Workshops_increase_awareness,

Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective

b. Dependent Variable: Project_roadmap_facilitate_owners_and_team

Table 9.17

Coefficientsa

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.495	.272		9.171	.000
Workshops_increase_awareness	.097	.100	.210	.970	.338
Conducts_job_training	.129	.110	.273	1.174	.248
Regualr_meeting_discuss_progress	.129	.119	.224	1.080	.287
Clear_mission	-.014	.132	-.030	-.106	.916
Clear_objective	.157	.144	.341	1.091	.282
Communicate_with_project_owners	-.224	.103	-.472	-2.168	.037

a. Dependent Variable: Project_roadmap_facilitate_owners_and_team

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D. Analysing the Fit of Regression Model between Communicate with management reflect decision making in PMO implementation section and other variables in PMO awareness section

It was clearly observed from table 9.18 and 9.19 that communicate with management reflect decision making affected by awareness factors like workshop awareness, job training, communicate with project owners, regular meeting, clear mission and objective

Table 9.18

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective[a]		. Enter

a. All requested variables entered.

Table 9.19

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.502[a]	.252	.131	.79980

a. Predictors: (Constant), Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective

From above table, the six independent variables in the regression model account for 25% percent of the total variation in PMO implementation affecting PMO communicating with management reflect decision making. Accordingly, in this case, the model fits data. Hence the independent variables or factors of awareness like workshop awareness, communication with project owner, clear mission, regular meeting, job training and clear objectives affect the factor of communicating with management in decision making which helps in implementation of PMO strongly. The adjusted R square value (in above analysis 0.13) means that there are very few other external factor affecting prioritizing project with the project owner.

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Table 9.20

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.968	6	1.328	2.076	.080[a]
	Residual	23.668	37	.640		
	Total	31.636	43			

a. Predictors: (Constant), Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission,

Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective

b. Dependent Variable: Communicate_with_management_reflect_decission_making

Table 9.21

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.290	.351		6.524	.000
	Workshops_increase_awareness	-.143	.129	-.261	-1.106	.276
	Conducts_job_training	.268	.142	.477	1.885	.067
	Regualr_meeting_discuss_progress	.224	.154	.328	1.458	.153
	Clear_mission	.012	.171	.022	.070	.945
	Clear_objective	.029	.186	.053	.157	.876
	Communicate_with_project_owners	-.109	.133	-.194	-.819	.418

a. Dependent Variable: Communicate_with_management_reflect_decission_making

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D. Analysing the Fit of Regression Model between risk identification and mitigation plan in PMO implementation section and other variables in PMO awareness section

Table 9.22 and 9.23 shows that the variable of risk identification and mitigation plan affected by awareness factors like workshop awareness, job training, communicate with project owners, regular meeting, clear mission and objective

Table 9.22

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective[a]	.	Enter

a. All requested variables entered.

Table 9.23

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.442[a]	.195	.065	.97725

a. Predictors: (Constant), Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective

From above table, the six independent variables of PMO awareness section in the regression model account for 19.5 percent of the total variation in PMO explaining progress and risk. In this case, the model "modestly" fits the data. . Hence the independent variables or factors of awareness like workshop awareness, communication with project owner, clear mission, regular meeting, job training and clear objectives are affecting the factor of variable of risk identification and mitigation plan which helps in implementation of PMO semi strongly. The adjusted R square value (in above analysis 0.065) means that there are very few other external factors affecting variable of risk identification and mitigation plan which can be neglected.

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Table 9.24

<p align="center">ANOVA[b]</p>

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	8.573	6	1.429	1.496	.207[a]
Residual	35.336	37	.955		
Total	43.909	43			

a. Predictors: (Constant), Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission,

Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective

b. Dependent Variable: Helps_identify_risk_and_puts_mitigation_plans

Table 9.25

<p align="center">Coefficients[a]</p>

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	2.470	.429		5.758	.000
Workshops_increase_awareness	.023	.157	.035	.144	.886
Conducts_job_training	.190	.173	.287	1.095	.281
Regualr_meeting_discuss_progress	.227	.188	.281	1.205	.236
Clear_mission	-.049	.208	-.076	-.235	.816
Clear_objective	.029	.227	.046	.130	.897
Communicate_with_project_owners	-.186	.163	-.280	-1.139	.262

a. Dependent Variable: Helps_identify_risk_and_puts_mitigation_plans

E. Analysing the Fit of Regression Model between portfolio management in PMO maturity section and other variables in PMO awareness section

Table 9.26 and 9.27 shows that the variable of portfolio management affected by awareness factors like workshop awareness, job training, communicate with project owners, regular meeting, clear mission and objective

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Table 9.26

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective[a]		. Enter

a. All requested variables entered.

Table 9.27

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.664[a]	.440	.349	1.29573

a. Predictors: (Constant), Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective

From above table, the six independent variables in the regression model account for 44.0 percent of the total variation in PMO maturity. In this case, the model highly fits the data. Hence the independent variables or factors of awareness like workshop awareness, communication with project owner, clear mission, regular meeting, job training and clear objectives affect the factor of portfolio management which helps in increase the maturity level of PMO strongly. The higher the adjusted R square value (in above analysis 0.34) means that there are more other external factor affecting portfolio management. Portfolio management is influenced by the external factor like awareness on creating best fit project charter, identification of project constraints, planning resources. Etc.,

Table 9.28

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	48.857	6	8.143	4.850	.001[a]
	Residual	62.120	37	1.679		
	Total	110.977	43			

a. Predictors: (Constant), Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective

b. Dependent Variable: PMO_implements_portfolio_management_practices

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Table 9.29

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.551	.569		.969	.339
Workshops_increase_awareness	.276	.209	.270	1.323	.194
Conducts_job_training	.165	.230	.157	.716	.479
Regualr_meeting_discuss_progress	.210	.249	.164	.840	.406
Clear_mission	.412	.276	.402	1.490	.145
Clear_objective	.072	.301	.070	.240	.812
Communicate_with_project_owners	-.341	.216	-.323	-1.576	.124

a. Dependent Variable: PMO_implements_portfolio_management_practices

F. Analysing the Fit of Regression Model between Quality assurance in PMO maturity section and other variables in PMO awareness section

Table 9.30 and 9.31 shows that the variable of quality assurance affected by awareness factors like workshop awareness, job training, communicate with project owners, regular meeting, clear mission and objective

Table 9.30

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective[a]	.	Enter

a. All requested variables entered.

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Table 9.31

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.495[a]	.245	.123	1.70334

a. Predictors: (Constant), Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective

From above table, there are six independent variables in the regression model account for 24.5 percent of the total variation in PMO maturity. In this case, the model fits the data. Hence the independent variables or factors of awareness like workshop awareness, communication with project owner, clear mission, regular meeting, job training and clear objectives affect the factor of quality assurance which helps in increase the maturity level of PMO. The adjusted R square value (in above analysis 0.12) means that there are few other external factor affecting quality assurance unlike awareness factors.

Table 9.32

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.831	6	5.805	2.001	.090[a]
	Residual	107.351	37	2.901		
	Total	142.182	43			

a. Predictors: (Constant), Communicate_with_project_owners, Workshops_increase_awareness, Clear_mission, Regualr_meeting_discuss_progress, Conducts_job_training, Clear_objective

b. Dependent Variable: PMO_has_quality_measures

Table 9.33

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.550	.748		2.074	.045
	Workshops_increase_awareness	.604	.274	.521	2.200	.034
	Conducts_job_training	-.002	.302	-.002	-.006	.995
	Regualr_meeting_discuss_progress	-.069	.328	-.047	-.210	.835

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Clear_mission	.188	.363	.162	.518	.608
Clear_objective	-.244	.396	-.210	-.617	.541
Communicate_with_project_owners	.050	.284	.042	.176	.861

a. Dependent Variable: PMO_has_quality_measures

G. Analysing the Fit of Regression Model between portfolio management in PMO maturity section and other variables in PMO implementation section

Table 9.34 and 9.35 shows that the variable of portfolio management affected by implementation factors such as, projects identification, projects prioritization, planning, monitoring by monthly report, Communicate with management reflect decision making and risk identification and mitigation plans

Table 9.34

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Helps_identify_risk_and_puts_mitigation_plans, Identifies_project_with_project_owners, MonthlyReport_explains_progress_and_risk, Project_roadmap_facilitate_owners_and_team, Communicate_with_management_reflect_decission_making, Prioritise_project_with_project_owners[a]	.	Enter

a. All requested variables entered.

Table 9.35

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.605[a]	.366	.263	1.37874

a. Predictors: (Constant), Helps_identify_risk_and_puts_mitigation_plans, Identifies_project_with_project_owners,

MonthlyReport_explains_progress_and_risk, Project_roadmap_facilitate_owners_and_team,

Communicate_with_management_reflect_decission_making, Prioritise_project_with_project_owners

From above table, six independent variables in the regression model account for 36.6 percent of the total variation in PMO maturity. In this case, the model fits data strongly. Implementation of PMO in Middle East

Hence projects identification, projects prioritization, planning, monitoring by monthly report, Communicate with management reflect decision making and risk identification and mitigation plans affect the factor of portfolio management which helps in maturity of PMO strongly. The lower the adjusted R square value (in above analysis 0.2) means that there are few other external factor affecting portfolio management. Hence, portfolio management is influenced by the external factor like like project interdependency, resources allocation. Etc.

Table 9.36

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40.643	6	6.774	3.563	.007[a]
	Residual	70.334	37	1.901		
	Total	110.977	43			

a. Predictors: (Constant), Helps_identify_risk_and_puts_mitigation_plans, Identifies_project_with_project_owners,

MonthlyReport_explains_progress_and_risk, Project_roadmap_facilitate_owners_and_team,

Communicate_with_management_reflect_decission_making, Prioritise_project_with_project_owners

b. Dependent Variable: PMO_implements_portfolio_management_practices

Table 9.37

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.798	1.101		-1.633	.111
	Identifies_project_with_project_owners	-.061	.316	-.037	-.194	.848
	Prioritise_project_with_project_owners	-.151	.315	-.094	-.481	.634
	Project_roadmap_facilitate_owners_and_team	.829	.369	.373	2.244	.031
	MonthlyReport_explains_progress_and_risk	-.074	.363	-.038	-.203	.840
	Communicate_with_management_reflect_decission_making	.389	.360	.208	1.081	.287
	Helps_identify_risk_and_puts_mitigation_plans	.441	.255	.277	1.729	.092

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Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-1.798	1.101		-1.633	.111
	Identifies_project_with_project_owners	-.061	.316	-.037	-.194	.848
	Prioritise_project_with_project_owners	-.151	.315	-.094	-.481	.634
	Project_roadmap_facilitate_owners_and_team	.829	.369	.373	2.244	.031
	MonthlyReport_explains_progress_and_risk	-.074	.363	-.038	-.203	.840
	Communicate_with_management_reflect_decission_making	.389	.360	.208	1.081	.287
	Helps_identify_risk_and_puts_mitigation_plans	.441	.255	.277	1.729	.092

a. Dependent Variable: PMO_implements_portfolio_management_practices

H. Analysing the Fit of Regression Model between quality assurance in PMO maturity section and other variables in PMO implementation section

Table 9.38 and 9.39 shows that the variable of quality assurance affected by implementation factors such as, projects identification, projects prioritization, planning, monitoring by monthly report, Communicate with management reflect decision making and risk identification and mitigation plans

Table 9.38

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Helps_identify_risk_and_puts_mitigation_plans, Identifies_project_with_project_owners, MonthlyReport_explains_progress_and_risk, Project_roadmap_facilitate_owners_and_team, Communicate_with_management_reflect_decission_making, Prioritise_project_with_project_owners[a]	.	Enter

a. All requested variables entered.

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Table 9.39

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.512[a]	.262	.142	1.68404

a. Predictors: (Constant), Helps_identify_risk_and_puts_mitigation_plans, Identifies_project_with_project_owners,

MonthlyReport_explains_progress_and_risk, Project_roadmap_facilitate_owners_and_team,

Communicate_with_management_reflect_decission_making, Prioritise_project_with_project_owners

From above table, the six independent variables in the regression model account for 26.6 percent of the total variation in PMO maturity. In this case, the model fits data. Hence projects identification, projects prioritization, planning, monitoring by monthly report, Communicate with management reflect decision making and risk identification and mitigation plans affect the factor of quality assurance which helps in increase the maturity of PMO. The adjusted R square value (in above analysis 0.14) means that there are only few other external factor affecting quality assurance.

Table 9.40

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37.250	6	6.208	2.189	.066[a]
	Residual	104.932	37	2.836		
	Total	142.182	43			

a. Predictors: (Constant), Helps_identify_risk_and_puts_mitigation_plans, Identifies_project_with_project_owners,

MonthlyReport_explains_progress_and_risk, Project_roadmap_facilitate_owners_and_team,

Communicate_with_management_reflect_decission_making, Prioritise_project_with_project_owners

b. Dependent Variable: PMO_has_quality_measures

Table 9.41

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.507	1.345		1.121	.270
Identifies_project_with_project_owners	-.587	.386	-.313	-1.520	.137
Prioritise_project_with_project_owners	1.109	.384	.611	2.884	.007
Project_roadmap_facilitate_owners_and_team	.211	.451	.084	.469	.642
MonthlyReport_explains_progress_and_risk	.307	.444	.139	.691	.494
Communicate_with_management_reflect_decission_making	-.872	.439	-.411	-1.986	.055
Helps_identify_risk_and_puts_mitigation_plans	.209	.311	.116	.671	.507

a. Dependent Variable: PMO_has_quality_measures

9.7 The main findings

After the main relationships have been discussed above by using the correlation and regression fit mode analysis through SPSS. The main finding

Communication:

The communication is one of the important factors which affect the implementation of PMO in Middle East. This has shown clearly from the above analysis of correlation and fit regression model for all the variables across PMO awareness, implementation and maturity levels.

From table 9.5 correlation coefficient of communication value between regular meeting, clear mission and objectives of PMO and projects planning is above .05, which indicates the positive and significant direction of the relationship. More over in the same table, the value of correlation coefficient of PMO communication with top management between projects prioritization, projects planning and risk identification and mitigation plans is above .05 which also indicates the positive and significant direction of the relationship.

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Accordingly, the communication is very important factor in PMO awareness and implementation phases.

Actually there are a lot of challenges, which affect the communication in PMO implementation in Middle East. From table 9.19, it was clearly obvious that PMO communication with management to reflect decision making affected by awareness factors like workshop awareness, job training, communicate with project owners, regular meeting, clear mission and objectives of PMO. However, in table 9.5 indicated that a low significant direction of the relationship between most of the awareness factors.

According to above, PMO in Middle East need to improve the awareness factors in order to enhance the communication which considers an important factor to implement a successful PMO.

On the other hand, in literature review, Dow and Taylor (2008) stated that the project management office (PMO) is important in the role of project communication. Moreover, there is a strong relationship between communication and teamwork performance and the productivity as Lioyed (2004) had said "if you ask people what the biggest people problem is at work, they are likely to agree with one voice, "Communication!" Communication problems are at the heart of many workplace problems and the end result is a loss of trust, teamwork, and productivity". Also, Maritato et al (2008) found that the improper communications at enterprise level of PMO initiatives are considered the most important factors for the failure of a PMO organization. Accordingly, Many projects in the UAE are now using several of electronic communication systems (El- Saboni et al, 2009).

Moreover from the conducted interviews with project mangers, they all indicated that internal communication and communication with customers are most challenge phased through projects implementation. Not to mention that, in case study 2 (details in appendix C) indicated that PMO team in A organisation has experienced some difficulties in the past when attempting to run projects due to communication difficulties between project owners and their teams. The PMO team tried to communicate with project owners to prepare the roadmap (planning tool) for each project and to get their related reports to show their status and progress. However, the respond rate was low from most of project

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owners; the reason was because they are not aware of PMO role and how it adds value. Another reason was because most of project owners were busy to achieve the required work and to meet stakeholder requirement. Accordingly, in the Second year a lot of actions have been done to improve the communication and were as the following:

1. More awareness for all of project mangers through project management principles training

2. Training have been conducted for all project owners to explain the PMO methodology as well as to explain the way of filling roadmaps and

3. On going develop specific PMO software to communication and to integrate the whole PMO system all together.

4. Upload all the related PMO documents on the intranet

From all the above, it's clear that communication is a very important factor in awareness phase in order to implement a successful PMO. It also indicated that, in Middle East, there is semi strong significant relation between communication and other factors in implementation

B. Planning

Planning is one of the most important factors which affect the implementation of PMO in Middle East. This was clear from the above analysis of correlation and fit regression model for all the variables across PMO awareness, implementation and maturity levels.

From table 9.5. The value of correlation coefficient of projects planning is above .05, which indicates the positive and significant direction of the relationship between awareness factors such as, workshop awareness, communication with project owner. Also projects planning have a positive and semi to significant direction of the relationship between implementation factors such as projects identification, projects prioritization and PMO communication with top management. While in maturity phase, projects planning have a positive and significant direction of the relationship between portfolio management. Accordingly, planning is very important factor in PMO awareness and implementation and maturity phases.

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On the other hand, there are a lot of challenges, which affect projects planning in PMO implementation in Middle East. To identify the other factors which affect the projects planning, an analysis of regression fit model has been done as shown in table 9.15 Accordingly, it was clearly obvious that projects planning is affected by awareness factors like workshop awareness, job training, communicate with project owners, regular meeting, clear mission and objectives of PMO. However, in table 9.5 indicated that a low significant direction of the relationship between most of the awareness factors.

According to above, PMO in Middle East need to improve the awareness factors in order to enhance the projects planning which considers an important factor to implement a successful PMO.

On the other hand, from literature review, this has been discussed earlier in this research which also supports the above finding. In this regards, Gray and Lerson (2002) stated that Arab plans are less detailed and only take account of only the next week or even less since other situations may take priority. Deadlines are more likely to be perceived as too demanding and may even seen a rude in the Arab culture (Hall, 1960). Although lack of planning has been attributed as characteristic of the Arab culture (e.g. Kabasakal and Bodur, 2002), Hofstede (2005) suggested that high UA cultures do plan but prefer to leave it up to the experts. In addition, El Sayegh (2008) found that lack of planning is one of the major highest rated risks which will affect the risk management in UAE. Moreover, Elgamal (2000) found planning is identified as an area of weakness in present Arab management. Also, weak planning at the beginning of the project has resulted in resource shortages or conflicts later in the project, warranting a break in work while the necessary materials are found and allocated. (Chapman, 2004).

From the conducted interviews with project managers in Middle East, it was obviously that planning is a very important stage in managing projects, which at the same time considers one of the main challenges which affect the projects successful.

In addition to above, it was noticed from the case study 4 (details in Appendix D) which is related to X contractor. Project manager which has been interviewed in this case study, has identified that the main problem which leaded to cost escalation and affected the

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project performance was the lack of planning which lead to issue a variation orders by C client.

C. Project management training

Project management training is a major factor which is needed to increase the awareness of project management and then to implement a successful PMO.

From table 9.5, the value of correlation coefficient of training between all factors across the three sections, is between 0.4 to 0.7, which indicates the positive and significant direction of the relationship. More over, it was clearly obvious that project management training affects the other factors in PMO implementation and maturity phase.

Also literature review is supporting the above statement. In this case, Perry and Leatham (2001) stated that, the culture of project management should be spread among project mangers before launching PMO, therefore; they have suggested a three stage process of training project managers, launching the PMO and deployment through active project consultation.

Moreover, from the conducted interviews, it was indicated that training is very important to develop staff and to manage projects. On the other hand in case study one (details in appendix B) and case study 2 (details in appendix C), training in project management was one of the taken actions to improve the performance of PMO in organization A.

D. Portfolio management

Projects portfolio management indicates the maturity level of PMO. The portfolio management is one of the important factors which affect the implementation of PMO in Middle East. This has shown clearly from the above analysis of correlation and fit regression model for all the variables across PMO awareness, implementation and maturity levels.

More over, both of table 9.27 and 9.35, indicates that the portfolio management is affected strongly with the factors of awareness and implementation phases.However,

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From table 9.5, the value of correlation coefficient of portfolio management between most factors across the awareness and implementation sections, is between 0.2 to 0.5, which indicates the positive and low to significant direction of the relationship.

Addition to above, from conducted interviews (details in Appendix F), it indicated that Shlumbenger organisation manages the portfolio by people and equipments which consider as the main assets of the organisation. Accordingly, to utilizing this pool of people, different services are delivered the clients. To be able to optimize the utilization of these resources and efficiently deliver the services to the clients. Inventory & Resource planning, up keeping, timely decisions are keys towards the portfolio management. These important tasks are managed by utilizing several tracking and planning systems/ tools like the following:

- **RITE System**- (Review or Routine Inspection of Tools & Equipment)-It is a methodology for tool and equipment management, which includes routine preventative maintenance and repair handling, engineering modifications, recording and analysis of equipment failure, and recording and reporting of asset location and history. A web based system called "RITE.NET" is an integrated technical management system developed to support the RITE methodology. RITE.Net is used to track the status of equipment which includes their modification, certifications and preventive maintenance record. RITE.Net is also used to produce technical management reports for the day to day workflow of cell engineers, managers and maintenance staff.

- **I-District-** is a business system to be used primarily as a resource planning tool. A schedule based interface enables locations to plan multiple future jobs and manage ongoing operations, allowing locations to manage a higher level of activity. **I-District** also helps managers in making sure that resources are used optimally by providing equipment and personnel information and availability during the planning process. The i-District application allows locations to work without the worry that someone has overscheduled, under scheduled, or forgotten the schedule altogether. Additionally, it provides valuable information that business decisions are based upon and improves our ability to plan for the future (CAPEX Planning). "Tool Utilization" (DU %) is one of the Key Performance Indicators (KPI) generated by **i-District**.

- **In Touch** is the technical support and knowledge management service to field operations. The service literally puts the field "**in touch**" with the technology centers. It is a system comprising of:

- o People
- o Processes
- o Technology and Technical support by Experts (knowledge database, ticket system, document management, document distribution)
- o Content / Technical Information and knowledge (validated, classified and maintained)
- o Culture (brought on by training, change management)

- **In Time TRACK** -brings visibility to the Product Delivery Process from Forecasting to Final Delivery. It enables field users to visualize the status and progress of their orders within the Schlumberger web procurement system. InTime TRACK combines data, giving you an at-a-glance view of the current status of your orders, while also showing the milestones with key dates. Modelled on a combination of industry cases, all internal orders are tracked, regardless of whether the item is an asset, product, a spare part or a third-party item.

According to above, PMO in Middle East need to improve the awareness factors and implementation factors in order to enhance portfolio management which considers an important factor to implement a successful PMO.

E. Quality mangement

The final important finding was the quality which indicates the maturity level of PMO. quality management is one of the important factors which affect the implementation of PMO in Middle East. This has shown clearly from the above analysis of correlation and fit regression model for all the variables across PMO awareness, implementation and maturity levels.

More over, both of table 9.31 and 9.39, indicates that the quality management is affected strongly with the factors of awareness and implementation phases. However, the affection by implementation factors is greater than the awareness factors.

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On the other hand, from table 9.5, the value of correlation coefficient of quality management between most factors across the awareness and implementation sections, is between 0.1 to 0.4, which indicates the low significant direction of the relationship.

More over from the conducted interviews (details in Appendix F) , it was indicated that there a lot of processes which are followed to ensure the quality process such as schlumberger which is an international company is executing a project by using a project specific documented template (electronic and hard copy) approach to be able to deliver with the required quality. This document is called as "Service Delivery Procedure" and is step by step guide for all the users to be able to deliver a particular project with consistent quality and capture all the information during the project. It defines and recommends the best possible approach, along with flagging of necessary internal approvals and external client approvals when required. At the end of the project, it helps us to review the entire project delivery with the client to close out the project and get their feedback using a Client Satisfaction Report.

On the other hand in GE which is also conseder one of the international organizations, is practicing the assignment of dedicated resources or (if it's not allowed by budget) adding Quality Checks on the scope of job or resources of the project, in accordance at the quality procedures already in place with GE organization.
While Tkatouf company which is local (government company) is currently in the process of implementing procedures and standard processes as part of the new office priorities. Just recently they have established a process for resource allocation and assignment that is to be followed by all the emirates offices.

In addition to above, in literature review, The number of ISO 9000 certified companies in the UAE has grown ten-fold to 1,004 in the years between 1995 and 2000 (Castillo, 2001). The introduction of TQM has required organizations to "develop a mind set of process orientation" (Thawani, 2001, p. 12) so that they "manage the business as a set of interacting processes, rather than managing departments" (Thawani, 2001). Unfortunately, many of these same organizations have yet to comprehend the managerial benefits of ISO 9000 and TQM. Rather, they see these systems as marketing tools (Al-Khalifa & Aspinwall, 2000) cited in (Chapman, 2004). Also, they have stated "The

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region is a long way from maturity in terms of total quality practices and organizational culture and climate" (p. 196). This observation similarly applies to the application of project management techniques. Until maturity is reached, managers can expect a continuation of the haphazard processes presently common in the region.

Finally it has been clear from above, that there is a major need to enhance the factors of awareness and implementation in order to enhance the required quality management.

F. Limitation

Despites researcher's best efforts, this research, as the case with many other researches, is associated with certain limitations. First, the research utilized the force choice survey in its questions. As the respondents are not allowed to express their own opinion, it is likely that the selected answer only represent respondents' closest point of view. Thus, certain inaccuracy is attached to the results.

The second limitation is also the related to data collection. Lack of a journal articles which is related to PMO implementation in Middle East. This is due to the new concept of PMO. More over, a lot of organizations, they have a similar departments but named with other names

The third limitation is the size of the selected sample. In reality, an inclusion of an increased number of respondents from the selected organizations will enhance the reliability and integrity of the result. However, from the survey sample which is involved 60 organisations, 44 respondents have responded.

The final limitation is associated with the aim of the study. Due to lack of even the minimum information on the status of current practices of project management office in Middle East, it is difficult to carry out accurate and comprehensive information to represent the real current practices of PMO. Accordingly, an extensive study trend to measure the project management in Middle East and how the culture could affect the status of project management in Middle East as well as the implementation of PMO. Moreover, four case studies have been discussed in this research to reflect the reality in

PMO implementation in UAE and to summarize the main related challenges. Also to minimize this point, an interview for four project managers in Middle East region has been conducted.

When analyzing the limitations above, it could be concluded that one of the main reason for the limitations was time constraint. Should an extended period of time be available, perhaps some of the limitations could have been avoided, or at least minimized.

CHAPTER 10
RECOMMENDATIONS AND CONLUSION

Recommendations in Conclusion

10.1 Introduction

Chapman (2004) found that Western project management theories do not translate effectively into the industrialized Middle East. At this point in time, the Middle East has too many cultural and religious differences, which include differences in human rights practices and nationalistic issues. These prevent the acceptance of Western theories of management. However, there are components of the project management process that are translatable and will succeed. Accordingly the following are recommended:

10.2 Recommendations

1. Common Vocabulary

Project managers should strive to develop a common vocabulary. English is the common language of business, and should therefore be considered the common language for the project. Great effort should be taken, however, to ensure that project terminology is translated into all the major languages on the project. While a written document is recommended by Western theories, managers must also concentrate on preparing an oral dictionary and encourage its verbal distribution to all team members and workers. (Forsberg et al, 2000)

2. Team Composite

The creation of teams must occur with sensitivity for the cultural, religious, and nationality makeup of the persons involved. Creation of cross-cultural and mixed gender teams must be carefully considered before execution. Western expectations such as equality and empowerment are not part of the present social fabric of the Middle East and cannot be expected to be successful. Tradition team building uses homogeneous groups. A successful project will use a similar approach. (Forsberg et al (2000)

3. Flexibility

Arab management does not yet have the knowledge and skills necessary for a truly Western-style project cycle. Project managers need to accept that medium and long-term planning are areas of weakness for the region. The concept of Insha'la will remain a planning issue that can only be combated by flexibility and a preparedness to think on one's feet. (Dadfar and Gustavsson, 1992)

4. Relationships

Individual loyalties dominate. The Arab culture is one of networks and families. As observed by Elgamal (2000), "Individual loyalties and relationships have a greater impact on organizational behavior". One must accept that decisions may occur based on these relationships rather than simple facts.

5. Hiring Skilled Workers

Promotions are often based on nationality. It is a fact of business in the Middle East that nationals may be promoted into positions beyond their qualifications. Project managers must compensate through additional and judicious hiring of skilled workers. (Chapman, 2004)

6. Evolutionary Change

Patience. The situation in the Middle East is changing, as evidenced by their increasing interest in quality management programs such as ISO 9000 and TQM. These programs create a force that impels businesses towards the project management techniques expounded by Western organizations. Although conditions are changing, change must occur within the bounds of the religion and culture of the region. Rapid change carries the risk of rejection and should therefore be avoided. (Chapman, 2004)

7. Performance monitoring, information and reporting

Performance monitoring, information and reporting to provide consolidated information that helps in tracking and monitoring project health and progress, to the right individuals up and down the organization, as well as across the organization. Special Systems should

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be developed to disseminate information to all project staff along with translations in many languages. (Duggal, 2006)

8. Inside-Out Approach

The PMO follows the lead of the true gurus – the core stakeholders, project managers in the trenches, and other customers of the PMO. Substantive project knowledge generally is hard-won and resides in the trenches. The PMO's role increasingly is to identify and evaluate what's working well internally, and amplify and show-case it from the inside-out. (Duggal, 2006)

9. Simplicity

The PMO can begin by identifying ways to slim, trim, cut, combine, chunk and modularize existing methods and processes. Pick the top three processes and see how they could be streamlined. PMO methodologies and tools should be scalable – fewer steps for simple projects and more detailed steps for complex projects. A one-page-fit should be the rule of thumb for most PMO reporting and documentation requirements. (Duggal, 2006)

10. Cultural Values and Arabic

Western project managers with experience of working within the Arab region know little about Arab cultural values. It is concluded that these project managers did not realize the significance of the Arabic languages. Training in these cultural values and Arabic can help impose the overall project environment. (Duggal, 2006)

11. Accountability

All projects should determine and use accountability as a part of the project risk profile. These accountability risks will be then identified and managed in a more visible manner. People shall be more responsible and take interest in the project. (Duggal, 2006)

12. Clear Vision and goals statement

At the beginning o the project we should determine which parts of a project are not understood by the team. Check the project documentation as prepared, and clear up the stated objectives and goals. Each project should be state clear direction, strategic goals, Implementation of PMO in Middle East

and vision for the whole organization, as part of the portfolio of projects for the organization. (Duggal, 2006)

13. Scope Consensus

There is no anti-scope-creep spray in our PM utility belts, but as with many project management challenges, document what is happening or anticipated to happen. Communicate what is being requested, the challenges related to these changes, and the alternate plans, if any, to the project participants (stakeholders, team, management, and others). (Duggal, 2006)

14. Training

Townsend & DeMarie (1998, cited in Curlee 2008) stated that, team appears to be more successful when training is conducted on communication skills and communication technology. Also, Reinsch (1999) and Sethi et al (2001, cited in Curlee 2008) indicate training in team communication methods also enhances a team's success. Also, Julian said that "The PMO must be supported by skilled and experienced project managers. They need the appropriate training, tools, and supportive environment to do their best … ."(pp.48)

10.3 Conclusion

This research has examined the relationship between traditional Western project management theories and the present business environment found in the industrialized Middle East. It also discussed the organizational behavior theories presented by experts such as Hofstede. Examples based on books, journal articles, and personal observations of managers working in the Middle East demonstrate that there is considerable distance between Western project management theories and present project management practices in the Middle East.

As was stated by Chapman (2004) that project managers should not expect to use Western practices in a carte blanc fashion; however, changes are occurring and project management practices will continue to evolve as the region matures.

In conclusion, As sted in the literature review that the development of a project management culture within the gulf has be a long-term commitment, mainly on the part of the project management practitioners, but also for senior executives, project services team and the government. One cannot really pinpoint in time when it began, but like most other organisations, the Middle East has progressed along a path of project management maturity. As a result of a major project failure in the early 1980's, there was recognition of the need for a structured approach to managing projects to increase their likelihood of success. The Middle East project management methodology is being developed and has evolved over the past ten years. It has been an iterative process with input from external consultants, international research including an analysis of the nine knowledge areas within the PMBOK and pragmatic input from practising project managers within the region. More over from the conducted survey, interviews and case studies interviews, it was clearly found that there are positive linear relationships between PMO awareness, implementation and maturity. It was found that the main factors of communication, planning, project management training, portfolio management and quality are the main important factors to implement a successful PMO in Middle East. Also, it was found those factors are affected by other factors across the three phases of PMO (awareness, implementation and maturity). Accordingly, recommendation has been mentioned to enhance those factors through improve the interdependent factors which affect the main factors of implementing a successful PMO. This work will require passion, commitment and continual championship for 'the cause'.

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Appendix A

Research Questionnaire

This research study titled "Implementation of PMO in Middle East" is undertaken by a student in M.Sc Project Management at British University in Dubai (BUID) to investigate the Project Management Office (PMO) status and awareness in organizations in the UAE.

Please answer **all** questions in relation to *YOUR ORGANISATION*

Full Name: ....
Organization Name: ....
Designation: ....
Mobile (only used if follow-up needed) ....

A small number of follow up research interviews will be conducted later - Is it ok to contact you again for a short research interview   [**Yes / No**]

PRELIMINARY QUESTIONS

Does your organization have a PMO   **[Yes / No]**

SECTION A: PMO Awareness

From your personal experience, how frequently are the following types of PMO awareness activity conducted in your organization

No.	Activity (Please Tick)	Never	Seldom	Sometime	Often	Always
1.1	PMO runs workshops to increase awareness of Project Management principles for employees					
1.2	PMO conducts on the job training					
1.2	Regular meetings take place to discuss project progress					

2. Indicate which of the following is true of the PMO in your organization
.

No	Activity (Please Tick)	Yes	No	Unsure
2.1	PMO mission is clear			

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2.2	PMO objectives are clear			
2.3	PMO is communicating effectively with project owners to clarify their concerns			

SECTION B: PMO implementation status and the related challenges

3. To what extent do you agree with the following statements?

No	Statement (Please Tick)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.1	PMO identifies projects with project owners					
3.2	PMO prioritizes projects with project owners					
3.3	PMO project roadmap (panning template) facilitates the role of project owners and project team					
3.4	Monthly reports explain the projects progress and the related risks					
3.5	PMO communicates the monthly report to top management effectively to make the necessary decisions					
3.6	PMO helps to identify risks and puts mitigation plans in place					

SECTION C: PMO Maturity

4. Indicate which of the following is true of the PMO in your organization

No	Activity (Please Tick)	Yes	No	Unsure
4.1	PMO implements portfolio management practices, which have been described as the coordinated management of a collection of projects that may be related or independent of each other			
4.2	PMO has quality measures			

5. Do you have any further comment, suggestion or contribution relative to PMO performance?

_____

_____

Thank you

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Appendix B

Case Study 1

PMO implementation in ABC organization

PMO Methodology

ABC organization has been established recently to develop and organize the statistical work in Abu Dhabi in particular and United Arab Emirates in general. ABC organization therefore has an independent legal identity and full legal capacity to act in a manner that is consistent with the orientation towards sustainable development and strategic plans under the supervision and with full support of the federal government of the Emirate of Abu Dhabi.

ABC organization has been established recently, ABC has coordinated with consultant company to establish the methodology of PMO. In the first two months, the methodology has been established with the cooperation of ABC top management and y the following stages:

1. Defined the success factors o the organization and did the current assessment for those success factors and the result indicated that dedicated skills resources is average, while the effective implementation process is need for improvement. On the other hand, there was a strong need for improvement in team work at project level.

2. PMO's mission and objectives have been defined and mostly were related to the following:
A. Planning and coordination
B. Monitoring
C. communication

3. The implementation of strategic projects have been prioritized based on its urgency and impact in organisations' strategy.

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4. PMO to be centralized as proposed by organization:

Selected PMO operating model
requires a well-sized team

PMO operating model

Co-ordinate ◄——————► Control

Monitor work ◄——————► Support work
groups   groups

Centralized ◄——————► Distributed

Increasing PMO resource required

◆ Option selected by organisation
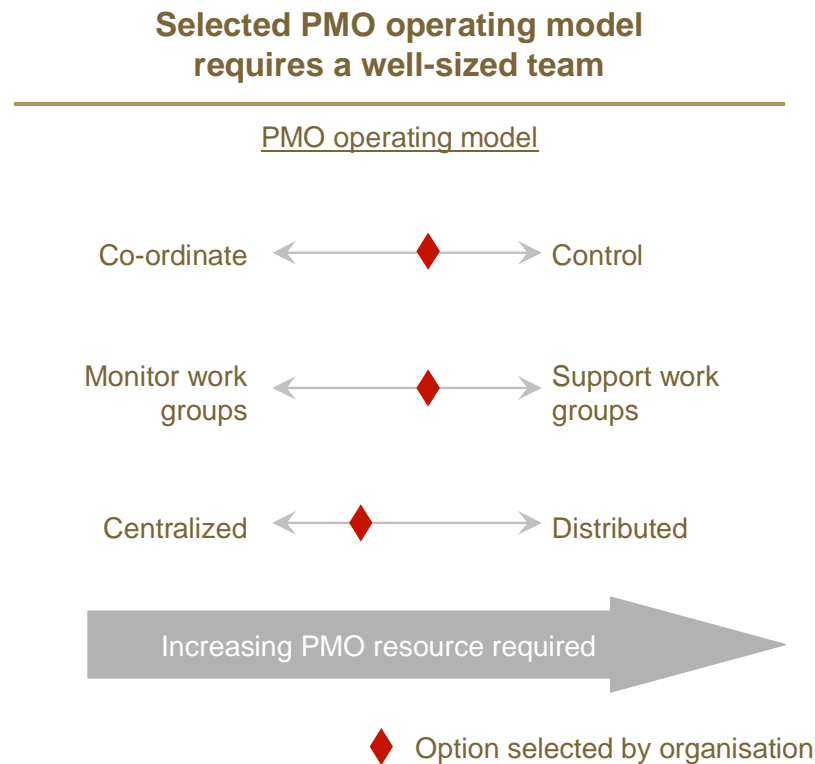
5. Processes have been defined such as, roadmaps development, issue management, project changes management:

6. Also the templates of PMO Roadmaps and reports have been defined such as, risk management report, project portfolio management

PMO implementation:

After the methodology has been established, The PMO should put this methodology into implementation actions. Several workshops have been done for project mangers and their teams. Some issues have been identified:

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1. Communication issue (explained in second case study)
2. lack of project management skills and knowledge
3. PMO roadmaps were used for few projects only
4. PMO reports were not effective and has low response

C. Improvements and enhancements

Actions have been made for the above:

1. Regular meetings with project owners and all tools of communication were identified as the following:
   - o Face to face
   - o Emails
   - o Telephone
2. Training has been conducted in project management principles and in PMO methodology of ABC organization
3. Road maps have been developed for all projects
4. Project owners are aware about the project reports and respondents' rate has been increased.
5. Ongoing develop specific PMO software to enhance the quality of reporting, also will enhance communication and to integrate the whole PMO system all together.

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Appendix C

PMO communication in A organization

As A is a brand new organisation there is a lot of pressure on the PMO to monitor and coordinate a lot of projects within the first year. In this case the PMO team has to communicate with the project owners to ensure the following:

- Promote the development of the projects required to meet A's strategic objectives

- Ensure the projects are accomplished on time by establishing best practices which facilitate rigorous planning and monitoring

- Ensure consistency and coherence of all projects, as well as coordination between them, managing effectively every interdependency

- Structure and standardize project reporting to facilitate decision making by project owners

As shown in the diagram below, the role of PMO is to communicate with project sponsors, owners and other teams.
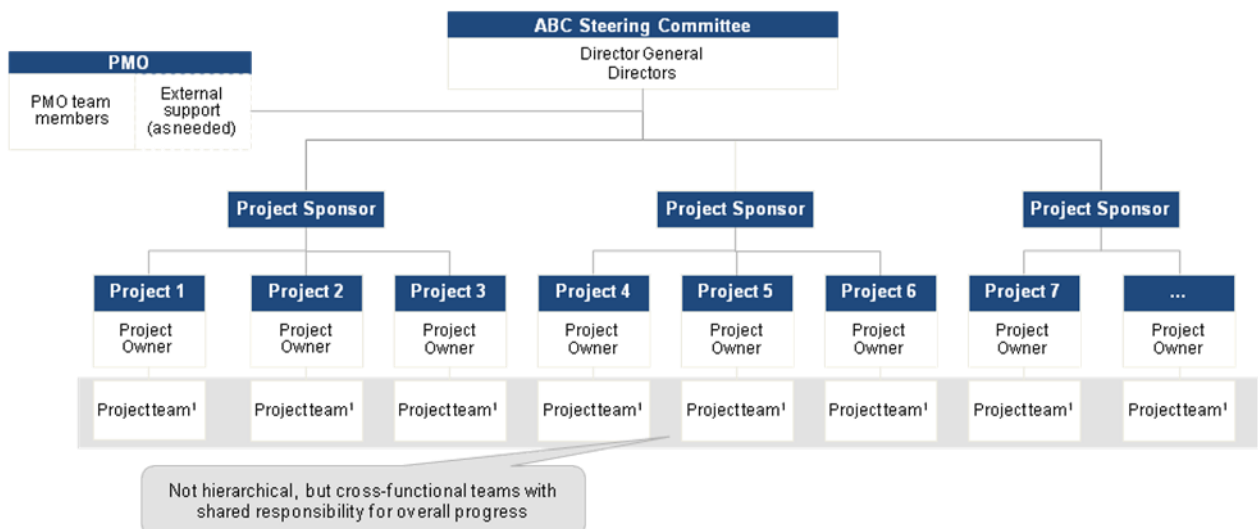
The PMO team has experienced some difficulties in the past when attempting to run projects due to communication difficulties between project owners and their teams. The Implementation of PMO in Middle East

PMO team tried to communicate with project owners to prepare the roadmap for each project and to get their related reports to show their status and progress. However, the respond rate was low from most of project owners; the reason was because they are not aware of PMO role and how it adds value. Another reason was because most of project owners were busy to achieve the required work and to meet stakeholder requirement.

PMO came up with a different way to solve the misunderstanding and tried to meet with the owners informally and explain the reports and roadmaps. Lack of coordination has been faced from some of project owners in order to meet with project coordinator due to hierarchical issues, and when the PMO coordinator meet the project team, some of them refused to communicate with him/her until they had permission from their direct managers.

In the Second year a lot of actions have been done to improve the communication and were as the following:

1. More awareness for all of project mangers through project management principles training

2. Training have been conducted for all project owners to explain the PMO methodology as well as to explain the way of filling roadmaps and

3. On going develop specific PMO software to communication and to integrate the whole PMO system all together.

4. Upload all the related PMO documents on the intranet

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Appendix D

Case Study 3

PMO implementation in X contractor

Company Background:

X contractor is one of the world's leading groups of engineering and construction companies, a key player in facilities and operations management, and in the ownership, operation and maintenance of infrastructure. X has been active internationally for nearly 40 years, establishing a multicultural network that spans every continent. X has offices across 30 countries around the world.

X has employs over 3500 employees in various projects in different countries. It was established in January 1987. The company is engaged in Engineering, Procurement, Construction and Construction Management in the field of District Cooling. The company's registered office is located in Abu Dhabi, United Arab Emirates. Locally company has completed 15 projects and 30 on-going projects to-date.

Prospect projects outside U.A.E.: Middle East, NA & Far East. X is a world leader in Engineering and Construction. Projects are in more than 100 countries for 10,000 Staff speaking over 50 languages.

X services district cooling users like: Airports, Municipalities, Military Bases, Hospitals, Utility companies (private and public), Metro Station and Sport Complex

X Mission: Be the preferred provider of District Cooling Solutions for the benefit of Users, Developers and the Community.

POWER DEMAND COMPARISON
A district cooling plant uses much less power (kw) to produce each cooling ton
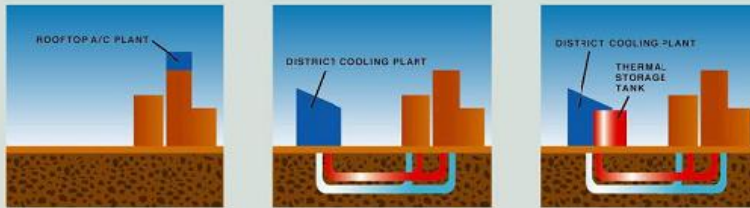
I have been worked in this company for two years as cost controller under the department of PCC (Planning, cost and control department) which resume the same mission of PMO but with different name, so we will call it in this research as PMO. This department is responsible to do planning, estimating and monitor the progress and cost of projects through cost and progress reports.
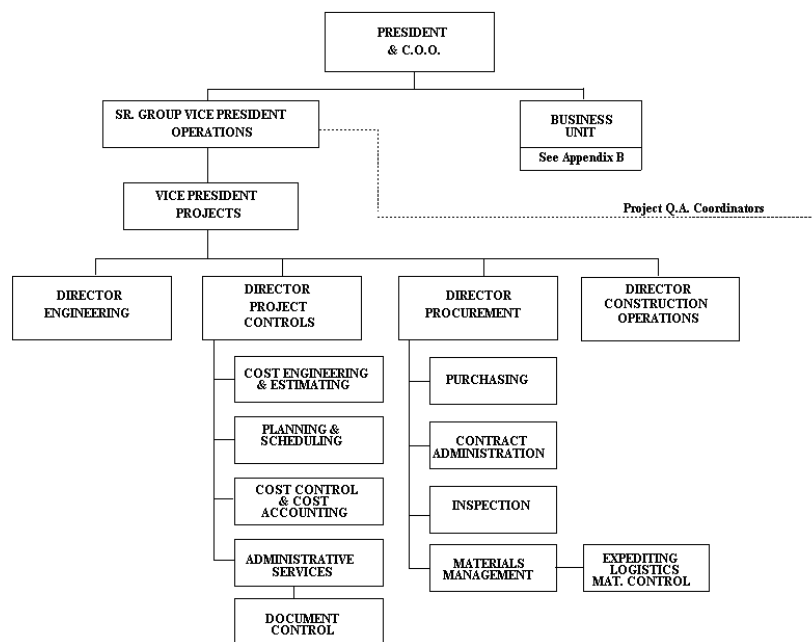
PMO uses a specific software call Project Management + (PM+) which is support X Organisation business by providing a tool to efficiently plan, forecast, track and report on physical progress for construction mandates as well as have the physical progress feed the billing process. Actually PM+ help to draw a Gantt chart and (WBS) for each project as shown in below chart

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PLANNING & SCHEDULING
- Parameters
- Gantt chart
- Coding structure (WBS, budget, documents, contracts, ...)
- User access to project`
- Man-hour control

ENVIRONMENT
- Plan(s) management
- Training/Prevention
- Inspections monitoring
- Incident tracking

HEALTH & SAFETY
- Plan(s) management
- Training/Prevention
- Inspections & audits
- Incident/Accident monitoring
- Leading/Lagging statistics reporting

ESTIMATING
- Detail estimate (WBS, commitment packages)
- Value engineering
- Multi-currencies

CORPORATE REPOSITORY
- Reference tables
- Templates
- System access &

INTERNAL MANDATE
- Monitoring of EPCM services (including performance analysis)
- Monitoring of commitment package schedule

COST CONTROL
- Budget monitoring
- Commitments and forecasts
- Trend analysis (scope, changes, ...)
- Invoices & payments
- Currency management

PROCUREMENT
- Purchasing
- Contract formation & administration
- Inspection, expediting & logistics
- Site material management

ENGINEERING
- Material / equipment definition & follow-up
- Interface with engineering tools (PDS, AutoPLANT, ...)
- Material requisitioning

DOCUMENT CONTROL
- Internal and external documents
- Transmittals
- Document status and history
- Tracking & follow-up

In order to have a clear Gantt chart and (WBS) for each project, In PM+, there is a specific window call Contract Progress Planning window is to enable users to plan and update construction contracts that have been flagged for physical progress at contract progress definition phase:

- View and update, for each contract's key milestones the Planned, Target and Forecast dates (start and finish)
- View the Actual dates (start and finish) and Site Forecast Finish dates
- View and update, for each contract's key milestones the progress distribution (Planned/Target/Forecast) in terms of percentages of completion and Earned Hours per construction periods
- View, for each contract's key milestones the Actual percentages of completion and Actual Earned Hours per construction periods
- View and update the manpower resources planning for the contract

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- View, for the entire contract or each key milestone, the graph of construction progress curves (planned/target/forecast/actual earned).

Planners enter Planned dates, Start and Finish, for each Key Milestones

Planned dates correspond to the original baseline dates

Target dates are revised Planned dates that are used when the original baseline is no more representative due to major amendments

Site Planners communicate the Site Forecast Finish dates

Planners can enter Manpower Planning for each Contract

The planned Manpower distribution is displayed as an histogram in the Construction Contract Progress Summary Report

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Also, The PM+ allow to have all reports related to cost such as following:

1. monthly cost control which is related to top management (include margin)
2. Site manger report which is related to project mangers (without margin)
3. Procurement report which is related finance and procurement section

Below sample of cost report summary:

Grouped by:3108
Period 54 From: 2009-01-01 To: 2009-01-28
Report Setting: SUMMARY REPORT
Project Currency: AED
Report Currency: AED   at the rate of: 1.00000000

| | Budget | | |
	Original	Scope C./Trsf.	Revised
	(1)	(2)	(3=1+2)
200-S - SALARIES	3,872,458	100,000	3,972,458
300-E - EXPENSES	14,524,767	946,855	15,471,622
370-P - PROCUREMENT	62,117,183	165,706	62,282,889
380-C - CONSTRUCTION	118,235,083	17,413,748	135,648,831
990-C - CONTINGENCY	3,974,990	0	3,974,990
992-M - MARGIN	35,774,908	3,286,996	39,061,904
Grand Total:	238,499,389	21,913,305	260,412,694

From above, it was clear as explained by the interviewer that PMO is in maturity level. The development of PM+ throughout all the other branches of the organization in worldwide came after 4 years of establishing the organizations. As stated by the project manger, the PMO faced a lot of challenges in the first three years and the communication was one of those challenges.

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Appendix E

Case Study 4

Variation orders and lack of planning

As mentioned above, X contractor is one of the world's leading groups of engineering and construction companies**.** X contractor manage a lot of difference phases of projects to district a cooling plant. The typical projects phases were going as below diagram:
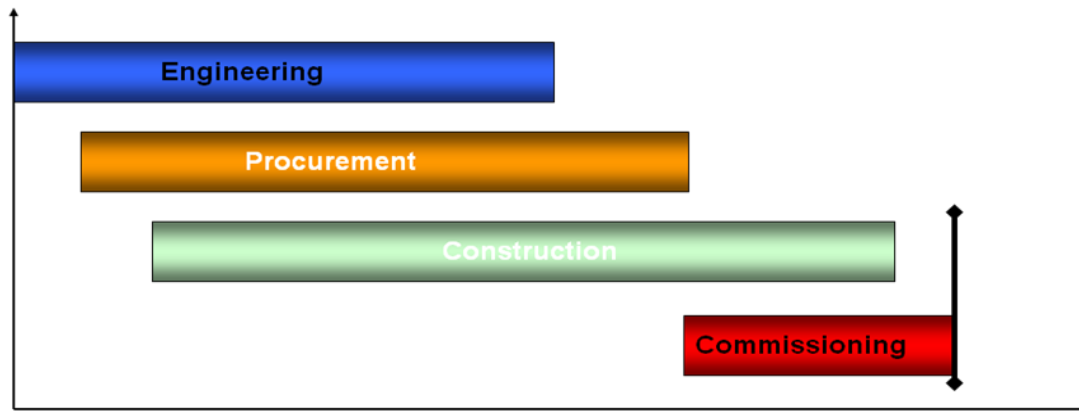
District a cooling plant is complex related to the difference phases of projects. According to this, X contractor is receiving a lot of variation orders from national client. X Contractor Company face a serious problem with its running and completed projects in Middle East which is the cost overrun due to variation orders from client. Actually this is affecting the performance of the project. Variation orders or change orders, as defined by Popescu et al. (1995), as a contract document authorizing or directing a project scope change or correction. Popescu indicated that a contract change order (variation order) is when a change is made in the original contract that will effect the scope of work. The change order is authorized by the owner and is often initiated by the contractor. On the other hand, Arain & Pheng (2005) found that a detrimental variation order is one that negatively impacts the client's value or project performance.

One of the projects which was monitored by me as cost controller was B cooling plant project which is one of major projects and was executed by X contractor company. The scope of this project is to build 10,000 Refrigerator Ton (RT) capacity of chilled water. Based on an award in October 2006, and depending on the availability geotechnical report, building permits, site, and utilities relocation, the plant shall produce 10,000 RT by March 2008 with intermediate capacity of 5,000 RT on manual mode 10 months after

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project award. The client hereby covenants to pay X contractor, in consideration of the design, execution and completion of the works, the final price of AED 73,015,985.

The three main faces of this project are the following:

- Procurements: including the major equipments such as, pumps, chillers, cooling plants, chemical treatment system, 11 kv & 3.3kv Switchgears, 3.3 kv Soft Starters, 11 kV & 3.3 kV Transformers, L.V. M.C.C.`s, U.P.S. & Batteries Charger and major field instruments.
- Construction works: including the earthworks, concrete, building architecture, building Services, mechanical and piping installation, electrical and instrumentation installation and services works.
- Commissioning: including Water System, Electrical Power, Automation Systems, Water Available from Client and Power Available 11 KV.

Case study analysis:

B cooling plant project end with both cost overrun which exceeded the budget by AED 6,448,690 and time overrun which was extended to additional 16 months. In order to know the reason of this result, I have interviewed the project manager of this project and he identified that the main problem which leaded to cost escalation and affected the project performance was the lack of planning which lead to issue a variation orders by C client and the main change orders were the following:

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- Change the design of earthworks and building architecture which exceeded the budget by AED 1,987,000
- Order an additional 11 KV Utility and Services which are related to construction work which was exceeded the budget by AED 1,544,00
- Order an additional Pressure and Temperature Gauges equipments which included in major field instruments and cost of AED 78,000

From above change orders, there were need to extra resources and additional volume of works which affected the performance of the project. It was obvious that because of the variation orders, the project was over with both of cost and time overrun. The charts below present the initial and actual cash flow.
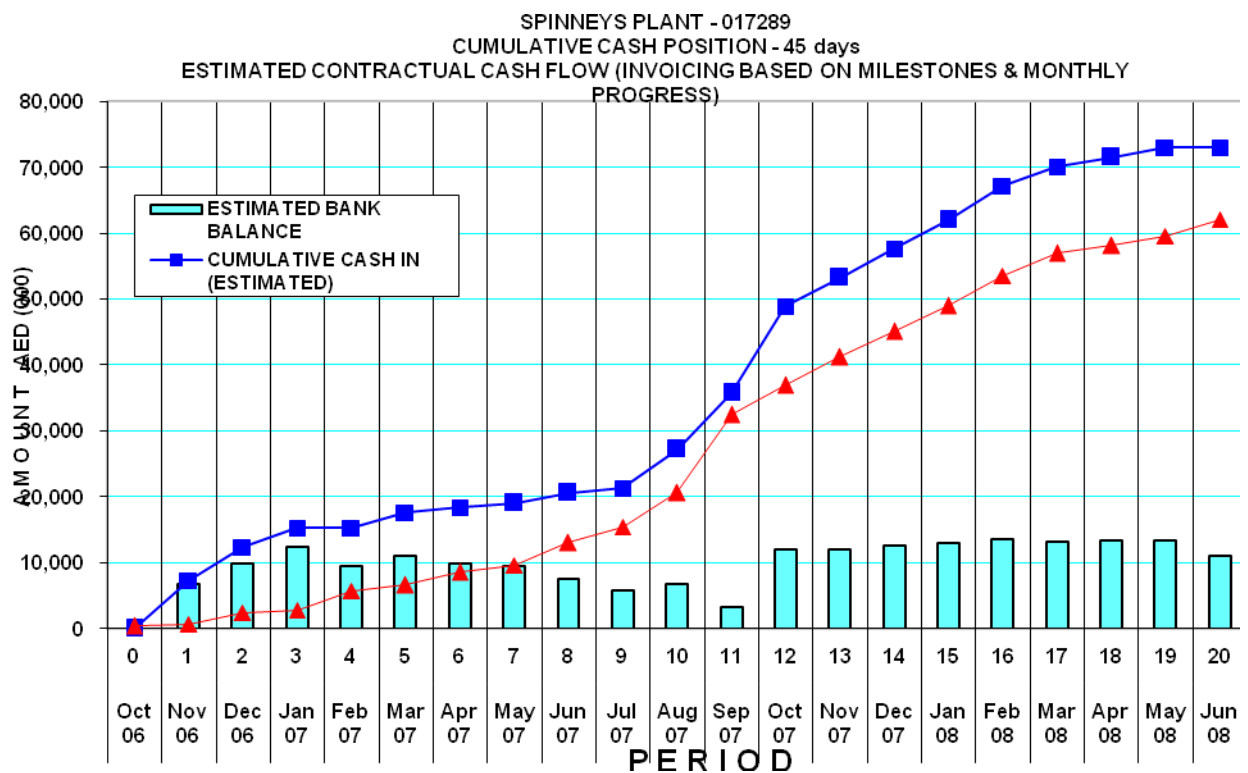

Figure no. (1) Initial cash flow
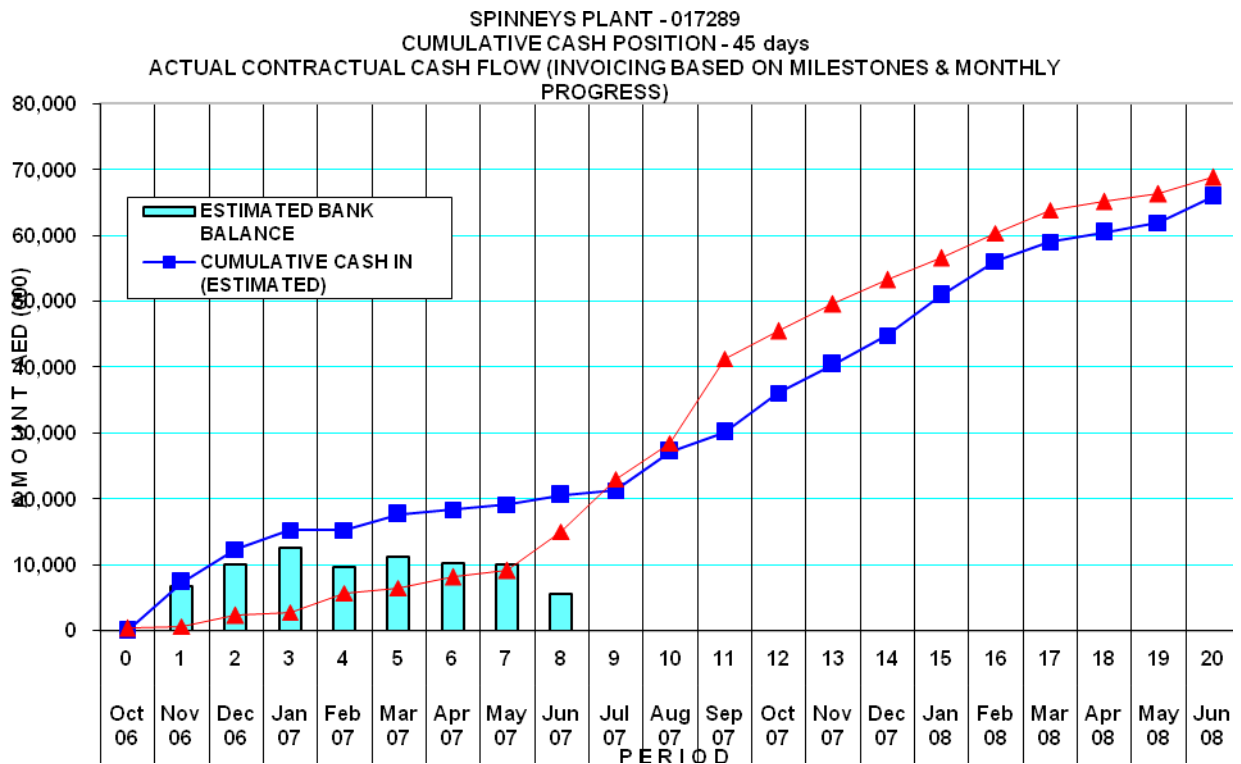
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Figure no. (2)Actual cash flow

As was mentioned before in literature review, Elgamal (2000) found planning is identified as an area of weakness in present Arab management. Also, Chapman (2004) stated that weak planning at the beginning of the project has resulted in resource shortages or conflicts later in the project. In addition, he stated that opportunity and risk assessment also suffers from the lack of sufficient advance planning; which lead to exceed the budget and project managers will find a difficulty in identifying where control points are required.

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Appendix F

Respondent No.1:

General Electric

GE's partnership with the United Arab Emirates began over 70 years ago. Through our business offerings that include power, water , health, aviation, and more, GE is able to be a partner in the UAE's quest to solve its toughest challenges. From clean energy centers to the world's soon-to-be largest theme park, successful partnership with the United Arab Emirates' governments and first-rate companies resulted in the impactful presence of GE in the country.

Question 1:   Describe how you've implemented portfolio management across an organization.   What tools have you used to manage the portfolio?

Answer: ORACLE and Artemis/Primavera: schedule with Costs and Prices match into this 2 tools carrying out budget, CM.

Question 2:   Describe a recent experience integrating different schedules across related projects or programs. What is your approach to manage and track key milestones and deliverables across a program?

Answer: Reports against status of activities and schedule

Question 3: How do you manage new project requests and determine the organization's resource capacity?

Answer: on Base of Contractual requirements, Budget and Internal procedures

Question 4: Describe a previous experience where you were responsible for process quality assurance. How do you ensure projects within the portfolio are following tollgates and obtain the necessary approvals to proceed?

Answer: Assignment of dedicated resources or (if it's not allowed by budget) adding Quality Checks on the scope of job or resources of the project, in accordance at the quality procedures already in place with our company

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Question 5: Describe your experiences managing financial budgets. What was the scope and processes used to manage program or portfolio forecasts?

Answer: Weekly reports, Non conformities report allow you to follow schedule with the due resources assignment and to address Quality issue and non conformities costs to Supplier or to Customer

Question 6: Describe an experience where you were responsible for coaching or training others on project management techniques.

Answer: Contract acknowledgement, internal procedure and contact points, issue escalation protocol, communication and review with customer

Question 7: What are the main challenges you have faced in managing projects?

Answer: Change orders, last minute criticalities due to a non conformity (Crisis management),

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Position: Project Manager of Middle East

Schlumberger

Schlumberger Limited is the world's leading oilfield services company supplying technology, information solutions and integrated project management that optimize reservoir performance for customers working in the oil and gas industry.

Question 1: Describe how you've implemented portfolio management across an organization. What tools have you used to manage the portfolio?

Answer: We being an oil & gas service industry our people and equipments are our assets. Utilizing this pool of people, different services are delivered to our clients. To be able to optimize the utilization of these resources and efficiently deliver the services to the clients. Inventory & Resource planning, up keeping, timely decisions are keys towards the portfolio management. These important tasks are managed by utilizing several tracking and planning systems/ tools like the following:

- **RITE System**- (Review or Routine Inspection of Tools & Equipment)-It is a methodology for tool and equipment management, which includes routine preventative maintenance and repair handling, engineering modifications, recording and analysis of equipment failure, and recording and reporting of asset location and history. A web based system called "RITE.NET" is an integrated technical management system developed to support the RITE methodology. RITE.Net is used to track the status of equipment which includes their modification, certifications and preventive maintenance record. RITE.Net is also used to produce technical management reports for the day to day workflow of cell engineers, managers and maintenance staff.

- **I-District-** is a business system to be used primarily as a resource planning tool. A schedule based interface enables locations to plan multiple future jobs and manage ongoing operations, allowing locations to manage a higher level of activity. **I-District** also helps managers in making sure that resources are used optimally by providing equipment and personnel information and availability during the planning process. The i-District application allows locations to work without the worry that someone has overscheduled, under scheduled, or forgotten the schedule altogether. Additionally, it provides valuable information that business decisions are based upon and

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improves our ability to plan for the future (CAPEX Planning). "Tool Utilization" (DU %) is one of the Key Performance Indicators (KPI) generated by **i-District**.

- **In Touch** is the technical support and knowledge management service to field operations. The service literally puts the field "**in touch**" with the technology centers. It is a system comprising of:
    - o People
    - o Processes
    - o Technology and Technical support by Experts (knowledge database, ticket system, document management, document distribution)
    - o Content / Technical Information and knowledge (validated, classified and maintained)
    - o Culture (brought on by training, change management)

- **In Time TRACK** -brings visibility to the Product Delivery Process from Forecasting to Final Delivery. It enables field users to visualize the status and progress of their orders within the Schlumberger web procurement system. InTime TRACK combines data, giving you an at-a-glance view of the current status of your orders, while also showing the milestones with key dates. Modelled on a combination of industry cases, all internal orders are tracked, regardless of whether the item is an asset, product, a spare part or a third-party item.

Question 2: Describe a recent experience integrating different schedules across related projects or programs. What is your approach to manage and track key milestones and deliverables across a program?

Answer: Since we are in the oil & gas service industry, our milestones are revenue based objectives being achieved. These milestones are tracked using certain Key Performance Indicators (KPIs) and timeline `based approach.

Question 3: How do you manage new project requests and determine the organization's resource capacity?

Answer: We in Schlumberger use a customized web based software called "i-District" that is used for planning the projects and the resources including the man power requirements.

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Question 4: Describe a previous experience where you were responsible for process quality assurance. How do you ensure projects within the portfolio are following tollgates and obtain the necessary approvals to proceed?

Answer: While executing a project we are using a project specific documented template (electronic and hard copy) approach to be able to deliver with the required quality. This document is called as "Service Delivery Procedure" and is step by step guide for all the users to be able to deliver a particular project with consistent quality and capture all the information during the project. It defines and recommends the best possible approach, along with flagging of necessary internal approvals and external client approvals when required. At the end of the project, it helps us to review the entire project delivery with the client to close out the project and get their feedback using a Client Satisfaction Report.

Question 5: Describe your experiences managing financial budgets. What was the scope and processes used to manage program or portfolio forecasts?

Answer: Every project that we undertake goes through an exercise of Profit & Loss forecast. Expected cost of the project is estimated and is utilized at the point of tendering process itself. This Profit & Loss is used as a guideline during the project execution and controlling of the costs.

Question 6: Describe your experiences implementing a change control board across a program or portfolio.

Answer: During the execution of the project any changes in the planning or the program must go through a procedure called as "Management of Change", that involves getting approvals internally and externally from clients as well. This process is followed if the change are approved and no violation of company or client policies and standard occurs. In case of deviations from the client or the companies policies and standards is required or necessary, a different procedure called as "Exemption" process is followed, that requires a through review of the need to deviate and consequences while doing so, by performing a Risk analysis and control. This is forwarded through the approval chain and has a validity for a particular step in the project and only for a limited approved duration.

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Question 7: Describe an experience where you were responsible for coaching or training others on project management techniques.

Answer: Mentoring and coaching is a continuous process and is required at every step of the project execution, trainees are supervised on all their tasks and have to follow a predefined set of practical and theoretical tasks. These are reviewed and approved by the mentor and on completing this assessment exercise, the trainee is allowed to handle the project by him/ her but under minimal supervision to ensure the quality of the project delivery is not compromised. Once the trainee has successfully handled the project, he or she is given a approval called "Break Out", that allows them to do projects independently in the future.

Question 8: What are the main challenges you have faced in managing projects?

Answer:

- Tight deadlines
- Limited resources
- Changes during the project execution
- Equipment Failures
- Keeping good communication with all people involved

Respondent No.3:

Takatouf Company

Organization provides a voluntary social program designed to create a culture of volunteering throughout the United Arab Emirates. The organization mobilizes people and resources across the nation to find creative and sustainable solutions for proven community needs. It particularly offers young people meaningful opportunities to volunteer for humanitarian, social and community programs.

Question 1: Describe the nature of your organization (summarized background)?

Answer: The organization that I'm employed in engages in various philanthropic activities that include: educational themes, youth and development, Sports & Health and Volunteer work.

Question 2: Describe how you've implemented portfolio management across an organization. What tools have you used to manage the portfolio?

Answer: Mostly the tools are in-house developed software that assists in comparisons of needs & in selection of the appropriate projects and portfolios

Question 3: Describe a recent experience integrating different schedules across related projects or programs. What is your approach to manage and track key milestones and deliverables across a program?

Answer: My role in this is mostly non supervisory, but I participated in analyzing the decisions taken. A recent experience was when we had to select among different events in the same schedule/period. The approach taken was to prioritize the most reliable event and accordingly make that selection committment. Generally strategic points are considered as to who are the main stakeholders related to the event and which event could be of greater impact and of higher influence to the society.

Question 4: How do you manage new project requests and determine the organization's resource capacity?

Answer: There is a national office that receives all project request and accordingly analyze the projects various points & then make go/no-go decisions and assign the resources required.

Question 5: Describe a previous experience where you were responsible for process quality assurance. How do you ensure projects within the portfolio are following tollgates and obtain the necessary approvals to proceed?

Answer: We're currently in the process of implementing procedures and standard processes as part of the new office priorities. Just recently we established a process for resource allocation and assignment that is to be followed by all the emirates offices.

Question 6: Describe your experiences managing financial budgets. What was the scope and processes used to manage program or portfolio forecasts?

Answer: Not-applicable

Question 7: Describe your experiences implementing a change control board across a program or portfolio.

Answer: I'm responsible for setting-up standards and procedures for various activites of the department, so often when introducing new changes in the program, meetings are held to discuss this and appropriate procedures are distributed to clarify the changes in roles and added requirements.

Question 8: Describe an experience where you were responsible for coaching or training others on project management techniques.

Answer: During a presentation, the aspect of communication and adequate evaluation of the projects was pointed out. This was later distributed to all the concerned staff as recommendations for improvement.

Question 9: What are the main challenges you have faced in managing projects?

Answer:

First challenge is in people management: there is a need to establish a good relationship with the main personnel involved. This facilitates discussions with the team on improvements or identification of issues faces

Second challenge is in understanding the organizational culture and approach; this is necessary for maintaining a sound relationship will the stakeholders involved & being in line with the organization values and expectations. This however, cannot be determined directly, but requires in-depth conversations with the main stakeholders and insight on the organization's vision and mission.

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Respondent No.4:

N company (Oil and Gas industry)

Question 1: Describe how you've implemented portfolio management across an organization. What tools have you used to manage the portfolio?

Answer: Portfolio management included program management and the followed by projects. Each Portfolio management is represented by region. In this case the region will be related to Middle East region. The company using the portfolio calendar which includes all the projects's time line and the related budget. Also in portfolio calendar will include the critical path. For example, pump installation in Middle East will need to install 172 pumps in 2011.

In planning phase, the start and finish date will be required for each project. Also the contribution margin will be calculated. Also resources should be available. Moreover, the peak point of all activities should be identified. Finally, a quarterly plan is needed.

Question 2: Describe a recent experience integrating different schedules across related projects or programs. What is your approach to manage and track key milestones and deliverables across a program?

Answer: There are different types of reports which should include the following:

1. Weekly implementation report which will include the dashboard to discuss the critical points
2. Monthly progress report which include three types:
   o   Technical report
   o   Finance report
   o   Risk report

3. Special report for the special projects which have a high contribution margin (CM)
4. Monthly reports for bending projects
5. Quarterly review with top management to discuss the main issues, the Contribution Margin (CM) and to do the forecasting for next quarters

Question 3: How do you manage new project requests and determine the organization's resource capacity?

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Answer: There is a special tool for resource capacity which called (ARTIMIS).This tool is help to identify the man power needed for each project and for a specific time. In case there are no enough resources in ARTIMIS, then three cases will be followed as below:

1. Train the engineers for this product
2. Recruit new employees
3. New trainee should be ready at needed time

In addition to ARTIMIS tool, there are Oracle tool for financial issues and MS project for project scheduling

Question 4: Describe a previous experience where you were responsible for process quality assurance. How do you ensure projects within the portfolio are following tollgates and obtain the necessary approvals to proceed?

Answer: Quality Assurance will be insure before, during and after the project is finalized.

Before start any project, the project manger should prepare a site survey report; this will be done by inspecting the site to know more about the customer requirements. The second step will be to launch a kick of meeting with the customer and discuss the site survey report to insure the customer requirements. Also before the project start, the health and safety report should be prepared to ensure all the safety condition will be applied during the work. More over there is report quality from both of the customer and the company it self to ensure that all the required standards are followed

Moreover 6 sigma standards should be implemented in infrastructure phase with the support of technical team. Also there is a conformity tools which is responsible to close all quality reports, study pending quality reports and propose a solution. All the recommendations regarding quality reports should be announced to all employees.

Question 5: Describe your experiences managing financial budgets. What was the scope and processes used to manage program or portfolio forecasts?

Answer: In the calendar portfolio, all the projects should represent their related budget. Also there is a special finance report to track the financial situation of the project. Moreover the are special reports for the project which include high contribution margin (CM)

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Question 6: Describe your experience implementing a change control board across a program or portfolio

Answer: To implement a good change control the following will be followed:

1. review the contract
2. If the client requests a change order, then the affection of change order should be calculated.
3. If the change order followed the standards, then the approval should be got from the top management
4. If the change order is requested by the project manger, then he should build his case and include all the required justification for this change order.

Question 7: Describe an experience where you were responsible for coaching or training others on project management techniques.

Answer: His program for trainees will be as the following:

1. Technical and project management training in the first year
2. Report system training
3. Communication skills with customer
4. Project planning and schedule training
5. online training

The next level will be to put the trainees in different projects with different locations under the supervision of project manager. More over the trainee should add new value to the project. For example, solve an issue or add new process which enhance the quality of project

Finally within three years the trainee will be able to run the project under his full control.

Question 8: What are the main challenges you have faced in managing projects?

Answer:
1. Scope of project and the related cost
2. Communication with customer and internally communication
3. Variation orders

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