

Studying the Effect of Establishing and Operating PMO in the Vice Presidency of King Abdulaziz University for Projects

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Abstract: *This research project aims to raise the performance efficiency and productivity of the accomplishment of projects at the Vice Presidency of King Abdulaziz University for Projects. The performance improvement would be carried out at these levels of customer satisfaction, supervision, quality, and saving time and costs. This Project investigates the effect of establishing and implementing project management office (PMO) at the Vice Presidency for Projects to improve project performance and results, as well as help project managers to achieve the desired objectives, gain customer satisfaction, and solve all problems and difficulties that may face projects, and establish an integrated project management system.*

Keywords: PMO, Vice President, King Abdulaziz University

1. Introduction

1.1 Introduction

A project is a time-bound process or activity; that is, it must have a start and an end date. Usually, the time scheduling is done once to provide a product or service with the goal of achieving a beneficial change or adding value. There is a difference between the fact that the project is a one-time temporary order, and being an administrative or operational task that are conducted in a permanent or semi-permanent manner to provide the same product or service over and over again. Project management does not necessarily require the same requirements as the permanent administrative and operational operations management, whether in terms of the required technical skills or business philosophy, and from here we find the need to develop project management.

The use of projects and project management continues to grow in our society and its organizations. We are able to achieve goals through project organization that could be achieved only with the greatest of difficulty if organized in traditional ways. Though project management has existed since before the days of the great pyramids, it has enjoyed a surge of popularity beginning in the 1960s. The use of project management to accomplish the many and diverse aims of society's varied organizations continues to grow.

Unfortunately, project management seems to be re-entering a stage that we thought had passed arguments within the profession (and among those who teach it) about what we really need to know to manage projects. Must we know "how to manage people" or "how to use computers and do quantitative methods"? We believe that establishing a Project Management Office is a MUST.

A project management office (PMO) is a group or department within a business, government agency, or enterprise that defines and maintains standards for project management within the organization. The PMO strives to

standardize and introduce economies of repetition in the execution of projects. The PMO is the source of documentation, guidance, and metrics on the practice of project management and execution.



Figure 1: Vice Presidency of KAU for Projects

1.2 Overview

The Vice Presidency of King Abdulaziz University for Projects studies the effect of establishing and operating Project Management Office (PMO). This process involves proposing an integrated engineering system that meets the various stages of design in accordance with international standards.

1.3 Problem Statement

The main challenge is centered on the difficulties of monitoring and controlling of running projects, many issues occur during the project planning or execution phases such as missing documentation or miss following specific standards, breaking the code, overpricing, overdesign,

computerized documents etc. Therefore, establishing and operating PMO is an efficient approach to increase the efficiency and productivity, as well as to mitigate the process issues.

1.4 Project Objectives

The research focuses on increasing the efficiency and the productivity of engineering projects at King Abdulaziz University by studying the effect of establishing and operating a project management office (PMO), which will be linked directly to the Vice Presidency of KAU for Projects. The responsibilities of this office are managing projects through the availability of technical and administrative staff, applying standard work procedures, improving efficiency in project implementation in terms of time, quality, and cost, having all required project information, solving problems instantaneously, and making fast and accurate decisions. Provide materials and spare parts for the projects with high quality and low costs and build a stock of spare parts and materials for the projects and organize the process of buying and storing.

1.5 Project Scope

Studying the effect by establishing and operating PMO in the Vice Presidency of King Abdulaziz University for Projects by setting a period of time to achieve the desired goals of the work of this project and what are the pillars, specifications and all actions that lead to raising the efficiency of performance and productivity through the establishment and operation of the Project Management Office (PMO).

2. Literature Review

2.1 Background

The primary causes of project failures are inclusive of inadequate budgeting, and project estimation, poor management of knowledge, poor information sharing and communication approaches, poor reuse of past lessons and experience learned, and poor understanding of technological advancements. The other reasons are inclusive of thin consistency in management, poor formal tracking, and reduced involvement of the functional user. The outcome is overrunning in time and cost through starting again or routinely abandoning the project before being completed with inferior qualities. The focus of project performance management is expected to change from functional or operational nature to a strategic-focused nature. The previous PMO studies that are well implemented can mitigate many of the challenging issues found in King Abdulaziz University. The adopted strategy is to transfer and capture, maximizing the usage of human resources through the power of cross-

functional groups, IT leveraging, integrated technologies demand regulation, and provision of accountability and ownership for the leading efforts. The method of PMO can determine the risk and impact of change and giving guidance to the university on the best standards and practices. Most of the institutions prefer PMOs to cut costs, increase the efficiency of the project, and success rates improvement in the delivery of services and products. In the research, current insights into the failure and success of PMOs have been given. Also, there is the provision of structure and rationale for a holistic method of sustaining and establishing the PMO.

Additionally, further development of the standard by PMI or project management institute, AMA or American management association, and APM or Association for project management (Alnaji & Salameh, 2014). The current challenges seen with performance in the multi-project areas are considered as the leading cause of project failure (Desmond, 2014). Following years of perpetual improvement in the level of projects completed successfully, there is stagnation and minute increase in failed projects number.

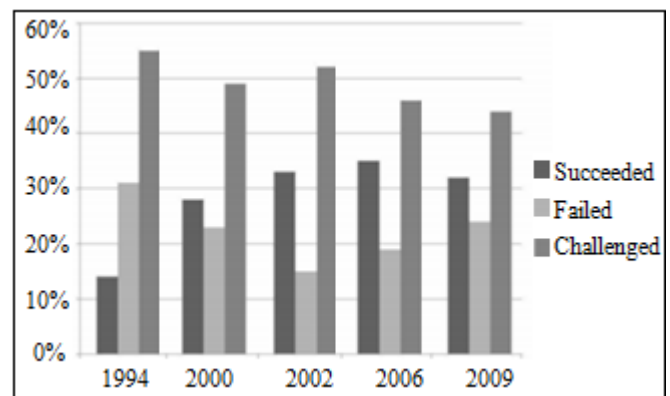


Figure 2: Percentage of challenged, failed, and succeeded projects between 1994-2009 (Hindi, 2013).

2.2 Best Practice in PMO

PMOs have been continuously challenged to show the value they possess (STAMFORD, 2016). Several best practices are stated for the leaders to incorporate for enhanced effectiveness in any given project by King Abdulaziz University. This improvement is also followed by programs and portfolio management and show support to the broader organization and in the outlined aims (STAMFORD, 2016). Lack of adjusting and evolving could result in PMO being out of alignment with the goals of King Abdulaziz University. The consequence is a failure in delivery by the operating PMO. According to Stamford, 2016, there are seven best practices in PMO as follows:

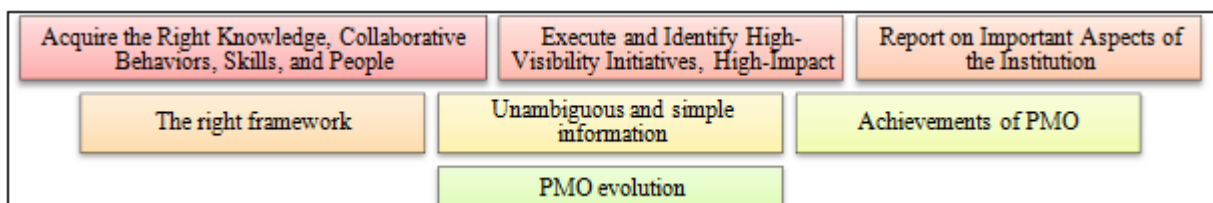


Figure 3: Seven Best Practice in PMO

2.2.1 Acquire the Right Knowledge, Collaborative Behaviors, Skills, and People

This factor is significant in a successful PMO. Whenever managers involved in the PMO take the roles of administrators, the credibility of the PMO is eroded and focusing on daily deliverables and tasks. A crucial part of effective project delivery is neglected and compelling changes in strategies with the institution. Generally, individuals are averse to change, and it, therefore, necessary for the PMO to employ personnel that can cause change upon resistance. There is a need for a broad range of communication skills among the manager involved in the PMOs for facilitation, persuasion, and conflict resolution.

2.2.2 Execute and Identify High-Visibility Initiatives, High-Impact

A long time is required to create a track record of enhancing management maturity and improvement in IT results from its investment. However, there is an opportunity of hastening the process through the identification of easy wins and improvement of delivery. This process is for the few critical and highly visible PMO projects, like for the case involved. It is essential to show the PMO's value to ensure that the stakeholders support and commit to future initiatives in PMO.

2.2.3 Report on Important Aspects of the Institution

The view of PMO by businesses is inconsistent, although executives mainly agree on PMO reporting programs and project status. However, many PMO report status programs and projects with the perception that communication is broken-down or report being out of context. There is a need to check the report to ensure that it gives organizational leadership containing the status information aiding in effective decision-making for the institution.

2.2.4 The Right Framework

A vivid framework is crucial for the articulation of PMO alignment with the perpetually evolving organizational direction and goals. It also assists in the identification of milestones and goals in mitigating issues and obstacles blocking the achievement of strategic success. Essentially, the correct framework is vital in the communication of PMO's value. Mainly, the need for PMO in the definition of goals with the managers is overlooked. The needs should be considered to understand the value of PMO.

2.2.5 Unambiguous and Simple Information

Routinely, PMOs have been perceived as inadequate in providing the type of data and information required by the managers. The result is a disconnection between reality and expectations. The project management office requires a shift from the belief of 'the more details given, the better.' This shift is to be replaced by the iterative change of reporting, which provides leaders with the required data and information for supporting their roles and duties. In the case of leaders with limited time in service, a precise, short, and informative form of reporting is recommended. The leaders are mostly occupied, and the required information is to link the PMOs to them.

2.2.6 Achievements of PMO

It is vital to note that metrics are essential, although they are to be complemented by promoting the success stories of PMOs to the institution. The consideration is hard numbers and tangible advantages, which are acknowledged by the stakeholders. The examples include how the project's shorter timescales on completion have affected the process of solving the main business challenges. For the advantages that are difficult to measure, surveys can be utilized for measuring the provided PMO value.

2.2.7 PMO Evolution

The involved PMO for operating in the university has to adapt to support the changes in technology and other transformations in innovations. For an instant, time is needed in the implementation of PMO based on the economic downturn. At conception, efficiency and cost reduction are the primary outcomes that are required. However, the institution may not be significantly concerned with the speed of delivery and flexibility. As a result, the staffing and configuration of the PMO cease to be ideal, requiring to change to show the current focus. PMOs that are effective perpetually reexamine their capabilities and processes, considering alignment with the current business needs.

2.3 Types of Project Management Office

There are three major types of PMO organizations depending on the level of control and their impact on the projects in the organizations (Project Smart, 2020). The managers are expected to identify the type of PMO to implement to have an effective and reliable project office. The PMOs includes the following: supportive, controlling, and directive.



Figure 4: Types of PMOs

2.3.1 Supportive PMO

This type of PMO offers comprehensive support through on-demand skills, best practices, providing increased access to important information and skills on other critical projects. Supportive PMO can function well in projects performed successfully in organizations with weak control and organizations that requires extra control. The supportive PMO would also help in designing a clearing house of the important project management information in the organizations for free usage by the project managers.

2.3.2 Controlling PMO

The controlling PMO is useful to organizations seeking to influence their activities, procedures, processes, and

comprehensive documentation among others. These organizations will offer support to the employees and demand for the support to be adopted in the organizational processes. In most instances, the organizations using controlling PMO will develop requirements that might require the use of certain templates, techniques, compliance with governance, and the adoption of other PMO based rules. Moreover, the project offices might demand for regular reviews through the controlling PMO and thus, causing a huge risk factor in the projects. This form of PMO functions well when, first, the compliance with the PMO guidelines would help to improve the organization and improve the way of executing projects. Second, the PMO has adequate support from the executives to back up the controls adopted by the PMO.

2.3.3 Directive PMO

Directive PMO is more than control, it usually takes over the implementation of the projects through offering project management experience and the resources needed to manage the projects effectively. As the organizations implement the projects, the project managers working for the PMO are assigned to the project functions. This helps to improve professionalism into the performance of the projects and helps to increase consistent practice in all projects because the project managers are reporting directly to the directive PMO. The approach is effective in big organizations that integrates their support in different areas and whereby the organizational setup aligns with the culture.

This form of PMO is specific to the culture, history, and nature of the organization. The objectives are to the implementation of appropriate methodology, standardization of terminology, introduction of effective project management functions, provision of supporting techniques, and improvement of the degree of project success in the organization.

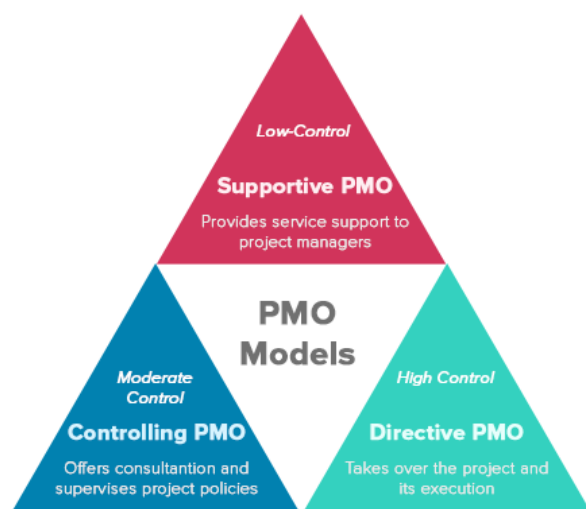


Figure 5: PMOs Models

2.4 Roles of PMO

The following are the benefits of operating PMO in the university towards productivity and efficiency (Alnaji & Salameh, 2014):

- a) Project assistance through giving support to the leaders in various items involved, for example, in the process of

change control, project documentation management, repository of a project (acting as a benchmark and giving the needed plans of the project, lesson learned, and historical record), reporting and tracking, management of risks, repository of project's resources, and tracking costs.

- b) Support for the software tools through the identification of the requirements for supporting software and project management software, monitoring and maintaining its performance, integrating between the software, and acting the role of professional expertise for the helpdesk to assist users on the software involved (the team members and the managers).
- c) Methodologies, standards, and processes through development, maintenance, and application of standards required in project management, methodologies, processes, and acting the role of the primary source of the regulations in the implementation of the program for the entire project of the institution. The documents are regularly updated through the application of lessons learned and best practices.
- d) Training through participation with the department of training and professionals in training centers in the preparation of different courses in project management. This training is for the project managers, together with other members of the different teams, to improve capabilities, and to accomplish optimum performances efficiently.
- e) Monitoring and consulting through the provision of consultation with other departments found in the institution, for example, the IT department, who might consider managing the projects on their own. Again, through the provision of consultation to the managers involved in case of challenges faced and carrying out regular auditing and monitoring of the projects, together with the provision of aid to the team in times of over-budgeting or whenever the project is behind schedule, hence improving efficiency and performance.
- f) Managing the project through coaching, developing, and evaluating leaders following the directions of the director or the manager of the PMO. This is the manager with the management of the database concerning the skills and capabilities of the managers. The PMO and the manager of the PMO are responsible for allocating the managers to their best positions based on the database involved.



Figure 6: PMO Roles

2.5 Implementation of PMO

The establishment of a new PMO structure generally needs a change in the culture of the organization or institution. This change is a result of the new technique in the management of a project, and it could finally take significant effort and time to be well-deployed in the organization (Polat & Meydanli, 2013). Involved in the process of implementation of the new method, it is essential to take into consideration whether the method will need to be operated at strategic or operational levels. The result is that the activities of the project management office are inclined to occur in the operational stage.

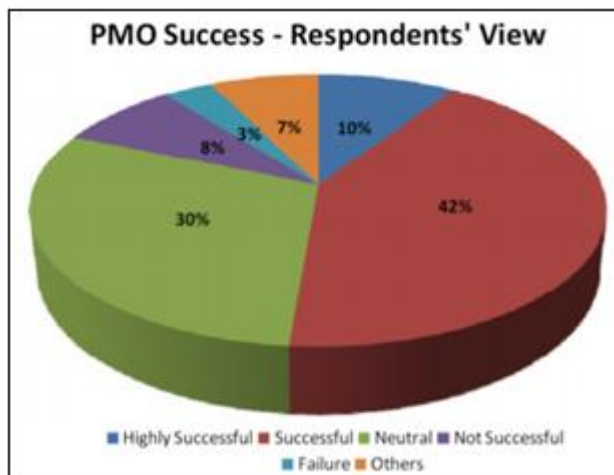


Figure 7: PMO implementation in the Middle East (Philbin, 2016).

The implementation of PMO requires consideration of factors regarding the needed strategic or operational aims. Also, the implementation should be contingent on certain organization content.

Business-driven PMOs implementation has the potential of benefiting from the adoption of a management method that is more process-based and focusing on documentation and tools. The other aspects to take into consideration when implementing PMO are inclusive of the need to possess a clear and initial focus on the definition of the entire role of the PMO and the responsibilities of the team needed in aiding the mentioned roles. The accompaniment for this need is the establishment of the communication and PMO structure model, ensuring effective interaction with the stakeholders of the PMO and the different executive sponsors of the project management office initiative. The operating model of the PMO based on scope and type of project are to be implemented and defined, together with the necessary project and governance arrangement of the PMO, for example, the structure of the project committee. PMO team members' appointment, followed by the general process of project management is needed that is incorporating the utilization of Gantt charts, work breakdown structures (WBS), risk registers, and resource plans. The description of business-oriented indicators and measurements, together with the perpetual enhancement of the process, is proposed. Implementation and performance status assessment across the fields that are considered as the building blocks for PMO is carried out to illustrate the capability enhancement plans and maturity assessment of the project.

2.6 Challenges in PMO Implementation

Inadequacy in the definition of management methodology. From the case studies carried out by (Rawi, 2010), most of the participants indicated that the factor is adverse to the PMO performance. Lack of well-defined methodology for management and ineffective implementation standards in the PMO is a vital driver of the program's failure. Inadequate practices and methodologies result in inconsistency in controlling and managing projects. The consequential effect is that visibility and reporting of the portfolio and project status becomes a continually moving target, hence a challenge.

Inadequacy in tracking the working hour resources in the institution. Again, most of the participants indicated that the factor is an issue in accomplishing the objectives of the program at the university. To generate the metrics-based assessments of resources, the PMO should have a mechanism in place, together with a tracking system for real work time. The absence of this factor makes it extremely difficult to give identity to the real capacity of the resources employed on a project. The result is that failure in attaining the estimated costs and schedules of any project involved by the university. The factor harms the efficiency and productivity of the method of PMO. Mostly, this challenge should be brought forward whenever there is an involvement of a matrix organization. The structure of a matrix organization has various advantages to the university using cross-functional groups working to support a common goal. However, many challenges are involved with the use of a matrix organizational structure. Managers who are competing for similar resources are expected to cause conflicts that are responsible for setbacks in performances and schedules.

Inadequate empowering of PMO in decision-making. This aspect is related to the requirement of possessing persistence and constant high executive and management support in the PMO. From the case studies, the report by Rawi, (2010), indicated that the aspect hurt the efficiency and productivity of the institution. Lack of support from an active executive makes the PMO lack empowerment in a decision making. The executives of King Abdulaziz University need to show support both at the lifecycle and at the initial stages of PMO implementation. The importance is equally essential for the project management office to be viewed as a business enabler.

The contention of the resource is another crucial challenge found with the operation of a PMO. In project management or institution management, resource contention poses a conflict, especially with the shared facilities and resources (Philbin S. P., 2015). This state is further escalated when the shared resource falls under the critical path of the schedule. Most of the respondents indicated that the challenge was experienced at the start-up stages of the implementation of the program. However, the methodology for management is made clear and precise. The scarcity of resources has always been a challenge in most of the projects and institutional management. A holistic framework containing basic gates and phases, together with several controlling artifacts, for

example, status reports and project schedules, is to be agreed upon and defined.

In the end, the more significant purpose of PMO is facilitating the success of projects management. This success has been made possible by the implementation of the best practices and standardization of the projects, project risks mitigation, and assisting project delivery effectively and under the schedule, together with scoping and budgeting needs (Desmond, 2014). Despite PMO being adopted by most institutions and organizations, there is a considerable challenge in the availability of existing literature. Also, inadequate information and data are available concerning the aiding frameworks describing the PMO's functions. The non-business and business world has gone beyond the national limits. The aspect of globalization has continuously evolved into key influence across the globe and in economics. The implication of global business growth is an increased need for efficient and productive management.

2.7 Summary of Literature Review

The literature reviews showed that the critical elements of planning, communication, training of project management, quality, and portfolio management were the significant factors to a successful PMO for most of the organizations. Again, these mentioned factors are also influenced by other inhibitors in the three phases involved (maturity, implementation, and awareness. There has been a mention of recommendations in improving these factors by developing the interdependency of factors that lead to success in PMO. Regarding other observations made concerning PMO suitability in the university, it is essential to consider the complexity level of the involved institution. This consideration will also involve the corresponding data and information processing needs.

Another element to take into consideration is the operation cost, together with PMO resourcing. This cost requires to cover the advantages of PMO implementation. Institutions may spend resources and money on implementing PMOs towards unwanted roles to bridge the gap observed; thus, this results in poor leadership concerning the performance and productivity of a PMO. This dissatisfaction results in challenging in the job by the staff. Hence, the establishment of a right PMO with the correct structure and role is significant. Analysis of real needs is vital in the establishment of decisions and allocating specific roles involved by PMO.

3. Research Methodology

3.1 Methodology Overview

In the present complex business setting, new projects are continually being created as associations look for better approaches to lessen costs, improve forms, increment efficiency, and assemble their primary concern. Dealing with these different projects alongside the individuals involved, assets, innovation, and correspondence is a troublesome undertaking for which the possibility of failure is frequently very high. Accordingly, a compelling arrangement, made to build up an increasingly brought together administration

structure for huge gatherings of undertakings, is the Project Management Office (PMO). The PMO gives associations a foundation of individuals, strategies, and instruments to accomplish efficient project management by utilizing project management principles, allotting assets, setting up reliable execution measures, and diminishing duplication of endeavors. The accompanying report features how to establish a project management office in Vice Presidency of King Abdulaziz University for Projects in the context of its establishment plan, methodology development plan, database plan, operation plan, together with follow up, monitoring and evaluation. The following sections in this chapter illustrate how to establish and operator PMO.

3.2 Establishment Plan

When establishing a PMO, the first step entails gaining the support of the executive and management of the university. This step depends heavily on the management of organizational change as it necessitates a possibly huge move in organizational culture just as jobs and duties. Although the resistance to change or possible issues that may emerge, this step is the establishment whereupon an effective PMO must be constructed. Similarly, as with any move in the organizational structure, approach, or system, emphasis must be increased through legitimization for the adjustments as far as money saving advantage together with Return on Investment (ROI).

Identifying project alternatives follows next in the establishment plan for the PMO. Lock (2014) indicates that institutions together with associations continually experience difficulties that require settling on hard decisions concerning elective alternatives for a project. Since every alternative will require the dedication of constrained assets provided by the institution, settling on an effective project selection choice requires the recognizable proof of the major contending options. Instances of such choices include:

- Which enhancements must be actualized to accomplish satisfaction of projects within the university?
- Which new services and administrative functions are expected to accomplish efficient in the university?
- Which frameworks should be re-built or moved up to keep pace with raising requests or improve productivity?

Assessing these choices is convoluted by the different or in any event, clashing requests put on decision makers within the university by the different potential project stakeholders (Nicholas & Steyn, 2017). For example,

- One customer may require the expansion of another item feature while another requests changes to the UI
- Human resource department might need to react to another procedure improvement while the engineering department may feel unequivocally that another item engineering or re-building ought to be given more priority
- Finance department may accept that item or procedure cost decrease ought to be the most elevated need while the administration division needs to improve procedure or item unwavering quality

According to Kerzner (2017), these contending requests elaborate alternative options for the project from which the

association must pick before an undertaking can be approved and work started. The cooperative nature of an undertaking workspace can help the management of the university while picking the venture choices by permitting them to talk about options utilizing the conversation zone and even decision on options utilizing surveys.

3.3 Development Plan

The PMO methodology development plans comprises of four phases.

(i) Initiation Phase

The inception stage, also known as initiation phase, includes all the exercises essential for the PMO to characterize the framework idea and get endorsement from King Abdulaziz University to begin the PMO project.

(ii) Planning phase

The Project planning stage is the way toward characterizing an efficient plan of tasks and assets to convey the successful completion of the project. The project plan is the essential document created during the planning stage and imparts project tasks and exercises as far as what activities will be performed, when the undertakings will be performed, what assets will be applied to achieve the activities, and how the activities will be sequenced.

(iii) Execution phase

The project execution stage starts when the project plan is endorsed and the assets essential for executing the beginning assignment are amassed. In like manner, project execution ought to be as per the affirmed venture plan and the task plan. This stage focuses on the production of new procedures, application arrangements, and innovation foundation parts important to support business goals. As such, the objectives of the execution stage are as per the following:

- a) Completing the arrangement as indicated by the task structure and plan following the undertaking plan and overseeing change.
- b) Monitoring and checking on the project's advancement against the arrangement
- c) Identifying when the undertaking is off course and accepting restorative activities as required
- d) Gaining venture acknowledgment inside the organization.

Accordingly, the inputs for this phase will incorporate the project charter, concept business case, real business case, venture prerequisites, venture plan, venture plan, chance evaluation and issues, together with meeting reports (Albert, Balve, & Spang, 2017). Conversely, the outputs will involve timesheets, status reports, meeting reports, issues, and change control archives.

(iv) Closing Phase

The closeout stage is the last stage in the methodology of the PMO. Closeout starts when the client acknowledges the undertaking expectations and the task oversight authority infers that the venture has met the objectives built up (Wen & Qiang, 2019). In like manner, the significant focal point of task closeout is authoritative conclusion together with logistics.

3.4 Data Base Plan

When establishing a PMO, data and information must be seen as a corporate asset. Other corporate assets must be dedicated to the advancement, execute and utilization of at least one database. In light of that, database planning entails corporate exertion to decide the data needs of the association structure broadened period into what's to come. As such, an effective database plan will go before operational task to plan and execute new databases to fulfill the data needs of the PMO.

Accordingly, the planning for the database will comprise of the use of relational databases that take into account various kinds of information 'objects' to be put away with keys and files to connect related information over numerous tables. For instance, one table holds client information and allots every client a unique ID, while another table holds request subtleties, including the client ID - expelling the need to copy client information if there are various requests from a similar client. This approach is alluded to as information standardization and in its easiest structure, endeavors to limit information repetition. Standardized database structure guarantees brief database design with the end of superfluous information duplication, just as the potential for streamlined database tasks and adjusting workload.

3.5 Operation Plan

To begin with, the operation plan for the PMO starts by identifying project sponsors. Associations endeavor to achieve numerous things simultaneously with restricted assets (Davis, 2014). Contending requests make it hard for venture groups to get the board consideration and duty of assets required for their undertakings to succeed. In like manner, the task support is an official part or an individual from the top supervisory group with the accompanying obligations:

- a) Ensuring opportune decision making.
- b) Advocating for required assets.
- c) Overcoming authoritative clashes and boundaries to extend execution.
- d) Responsible for delegating and instructing the job administrator.
- e) Ensuring auspicious making of decisions as well as resolving issues.
- f) Coaching the project manager as required.
- g) Providing venture oversight together with audit.

As a result, the operation plan comprises of the following steps:

- a) Identifying the individuals from the executives in the performing association with the best stake in the venture result.
- b) Making sure candidates have a reputation of achievement supporting comparable undertakings.
- c) Auditing the candidates with the possibility to guarantee accessibility and pledge to the project.
- d) Get simultaneousness among individuals from the management group.
- e) Announcing sponsorship to key venture partners.

After identifying project sponsors, the next step in the operation plan is appointing project manager. The stakeholders, other corporate, divisional, departmental management, together with sponsor of the project will delegate the task chief for the venture as the date to begin the task moves close (Zulch, 2014). The contemplations in the choice incorporate the applicants' specialized and integration capabilities, authority capacity, experience on project management, information on the association, and capacity to influence the participation of key partners.

The project manager is considered responsible for guaranteeing the achievement of the PMO office, driving the task group to accomplish its targets, guaranteeing powerful interchanges with the board and other non-venture associations, and guaranteeing that the task issues are recognized and settled in an opportune way (Kerzner, 2017). The steps for this activity of the initiation phase are as per the following:

- a) Determining the capabilities expected to deal with the task
- b) Identifying likely candidates who meet the qualifications
- c) Checking for potential accessibility with the candidates
- d) Evaluating potential candidate's dependent on their appropriateness
- e) Checking for commitment and responsibility of the most appropriate candidate
- f) Confirming selection with the applicant and announcing the appointment to the project's partners.

To make the task plan, the accompanying advances will be taken:

- a) Assembling the project planning team
- b) Designing a work breakdown structure (WBS) from the most significant level classes.
- c) For each assignment, time will be evaluated for the hours required and term. The term assessments will be produced from verifiable information of comparative ventures or by performing estimation computations to give the most probable span to the assignment.
- d) Assigning the asset jobs, for example, designer, draftsman, or system expert required for the undertaking.
- e) Documenting any suppositions and conditions made in the timetable.

Kloppenborg (2014) expresses that a WBS groups venture components to sort out and characterize the all-out extent of the undertaking. The WBS is utilized with the extension explanation created in the undertaking the executives intend to create or affirm a typical comprehension of task scope. Each descending degree of the WBS speaks to an undeniably point by point portrayal of the venture components. Likewise, a WBS from a past undertaking will be utilized as a layout for another project.

Toward the finish of this stage, the project manager will have the option to finish the venture plan utilizing the design and move it to an undertaking planning application, for example Microsoft Project. This stage is not just an approach to make a venture plan using the particular preparing from the chose venture group, but at the same time is an incredible group building movement permitting group purchase in for the task, the exertion required for appropriate undertaking

execution, and expanded correspondence to the undertaking group.

Consequently, the next step in the operations plan is developing the project charter and announcing the start of the project. The reason for the developing the project charter is to officially perceive the presence of another task or the following period of an undertaking (Gido, Clements, & Clements, 2014). Formatting and content rules for this report are recommended by the association's strategy and shift from organization to organization. The commencement of the project is officially archived and conveyed through the project charter and it gives the project manager with the power to apply hierarchical assets to start project tasks.

The project charter ought to be made by the project manager and the project sponsor and given to every influenced department in the institution to advise them regarding the beginning of the venture. The conveyance of the project charter makes ready for between hierarchical participation and ought to insignificantly appear as a notice or email from the venture support to everybody who will add to or be affected by the project. More so, the project manager together with the project sponsor should meet straightforwardly with chiefs and key benefactors in the institution to get their opinions on the undertaking (Gareis et al., 2013).

The components for the undertaking contract will incorporate the following:

- a) The names of both the project sponsor and project manager.
- b) An announcement of the general venture reason and the execution approval.
- c) Explicit administration targets for the venture.
- d) An estimation term for the venture.
- e) The need of the venture comparative with other authoritative activities.
- f) The degree of and cutoff points to the project manager's power and responsibility.
- g) A depiction of known presumptions and requirements, including expected finish time and assets impediments that may straightforwardly influence the undertaking.

Accordingly, the following steps will be performed to complete this stage of the operation plan phase:

- a) Designing the project charter from the recommended templates.
- b) Identifying all the partners and associations possibly influenced by the task.
- c) Formally conveying the task approval recorded as a hard copy or electronically.
- d) Following up by meeting with key task partners face to face to talk about desires and concerns.
- e) Transition to project planning team.

Prior to collecting the prerequisites of the project, it is important to choose project planning team members (Rowe, 2015). It is important to utilize the concept proposition, business case, together with the project outline for recognizing key people to accumulate necessities and plan the undertaking during the arranging or configuration stage. As needs be, after the underlying choice of the project team, it is imperative to hold a commencement meeting to permit

the presentation of colleagues, talk about the venture overview, examine project duties and obligations, and survey any documentation made or gathered to date. Likewise, it will be important to distinguish any preparation needs during the gathering. The steps to be performed will be as per the following:

- Identifying fundamental skills required for the venture from the necessities gathering.
- Selection of initial project planning team.
- Holding project kick-off gatherings.

3.6 Follow-up, monitoring, and evaluation

Since the PMO structure is completed, principles and standards for project management are built up and conveyed, and staff is prepared. Subsequently, the focal point of the PMO is moved to evaluating and estimating achievement. This point in time denotes the commencement of progress and execution announcing dependent on institutionalized devices, layouts, and approaches. Nonetheless, it additionally denotes the start of a constant procedure improvement cycle and a change from PMO sending to operational sustenance. As the PMO advances, venture colleagues are expected to keep up a familiarity with the measurements by which their projects are estimated just as how process viability is resolved. There must be a deliberate exertion to recognize forms that require improvement. When recognized, improvement estimates must be created and executed.

The foundation of a compelling PMO is useful to any association that deals with an arrangement of ventures. When arranging and building a PMO, it is basic that it is done in a way that praises the current structure of the association. This will permit the organization to increase greatest advantage and to do in any case would be counter-gainful. Since each association is unique, the ideal structure for the PMO must be planned dependent on numerous contemplations and factors. The capacity of a PMO to oversee extends through reliable and repeatable gauges and procedures bring

numerous advantages. It gives the association responsibility, progression, streamlined oversight, and the capacity to quantify venture achievement even more successfully. A successful PMO is an impetus for more prominent effectiveness as it permits an association to accomplish greater quality work with fewer assets and less hazard. The consequence of these advantages is an association, such as King Abdulaziz University will altogether improve its project achievement rate.

3.7 PMO Templates

3.7.1 PMO Cost planning template

PMO Cost planning template assists the manager in understanding the cost of the project, which gets captured monthly. The price is split between the information technology and the third party, for instance, stakeholders and sponsors. The cost planning template consists of the exchange rates to convert various currencies onto the reporting currencies. Information is presented in a document form or using tables or spreadsheets.

3.7.2 PMO Cost reporting templates

PMO Cost reporting templates are similar to the project cost reporting template that enable PMO gather information into one model. Templates are essential in tracking the use of resources and mobilization of PMOs. Models are more comfortable to use because PMO customizes the templates from a clear page (Darling, and Whitty, 2016). Document storage or a presentation template used to store documents into a word document or spreadsheet templates make it easier to copy-paste as well as retrieve information.

3.7.3 Cost Trend Analysis

The template will be critical for the analysis of variations in the cost of various components. This information will be critical for the management to evaluate the costs and hence plan for the current and future projects.

Cost Trend Analysis									
Project Cost Data						PMO Cost Trend Analysis			
<Year>						<Year>			
Budget	YTD Actuals Previous Month	YTD Actuals Current Month	ETC	Revised Forecast	Variance (C - G)	Straight Line	Variance (G - J)	Weighted Latest Month	Variance (G - L)
£1,850	£1,040	£1,230	£540	£1,770	£80	£3,690	£1,920	£2,750	£980
Month	Mar	Apr							
Project	Budget	YTD Actuals Previous Month	YTD Actuals Current Month	ETC	Revised Forecast	Variance	Straight Line	Variance (G - J)	Weighted Latest Month
	£500	£200	£250	£230	£480	£20	£750	£270	£650
	£750	£500	£600	£200	£800	£50	£1,800	£1,000	£1,400
	£200	£150	£180	£10	£190	£10	£540	£350	£420

Figure 8: Illustration of a cost planning template

4. Study the Effect of Applying PMO in Vice Presidency of KAU for Projects

4.1 Introduction

Currently, the university is planning to implement a PMO essential in ensuring the success of current existing projects.

A PMO is a group or department that gives associations a foundation of individuals, strategies, and instruments to accomplish efficient project management by utilizing project management principles, allotting assets, setting up reliable execution measures, and diminishing duplication of endeavors. The accompanying report features how to establish a project management office in the Vice Presidency of King Abdulaziz University for Projects.

4.2 Study the Current Situation of the Vice Presidency of KAU for Projects

The department of the vice presidency for projects is responsible for a total of active 57 projects. The current project management programs being utilized at King Abdulaziz University are the Primavera Contracting Management (PCM) and IBM MAXIMO. A certification platform (ETIMAD) is the current program considered in the disbursement and contract budget. The following are the criteria and the principles considered in selection of consulting offices:

- Financial capabilities
- Administrative and technical abilities (existing experience, quality, environment, health and safety, number of employees).
- Existing contractual obligations (number of existing projects, value of projects)

The criteria and principles considered in the selection of contractors include:

- Monetary capabilities
- Quality of work (previous work)
- Adherence to the schedule
- Adherence to the terms of the contract
- Supervision and project management
- Safety on site
- Cooperation

The methodology considered by the university's administration while the contractor fail to complete the project as the following;

- Regular meetings with the contractor to advance the work and overcome obstacles.
- Sending warning letters.
- Imposition of a delay fine.
- Withdraw the project.

Currently, there is a list of 3 projects that commenced and culminated in accordance with the set contract period. Equally enough, there are 6 projects that failed to comply with the set contract period. The projects currently considered as the percentage of completion attributable to the disbursement's percentage translates to 100 percent, meaning all projects. On the other hand, there are no projects whose completion percentage failed to match with the disbursement percentage. Nonetheless, there exists a performance indicator for contractors, who have managed to execute projects, and this has facilitated in identifying excellent contractors. Last but not the least; the projects have a performance indicator, including the consulting offices.

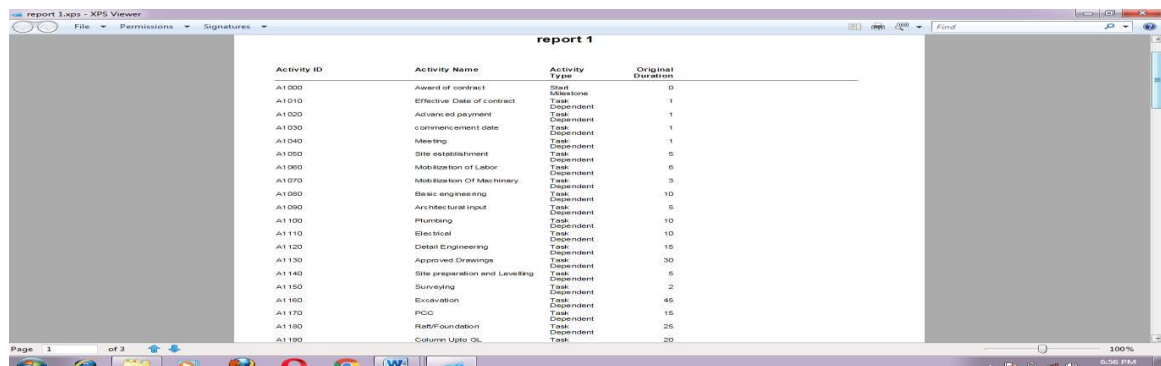
The PMO plays an essential role in enhancing the efficiency and productivity within the university. Considering that there

are around 57 current projects that have to be completed, a PMO must be established. However, with the establishment of the PMO, it would help in enhancing the communication between the departments or groups, thus eliminating or reducing the vacuum effects.

The scope of this research project is within the need to increase efficiency and productivity by establishing and operating PMO in the Vice Presidency of King Abdulaziz University for Projects by setting a period of time to achieve the desired goals of the work of this project and what are the pillars, specifications and all actions that lead to raising the efficiency of performance and productivity through the establishment and operation of the Project Management Office (PMO).

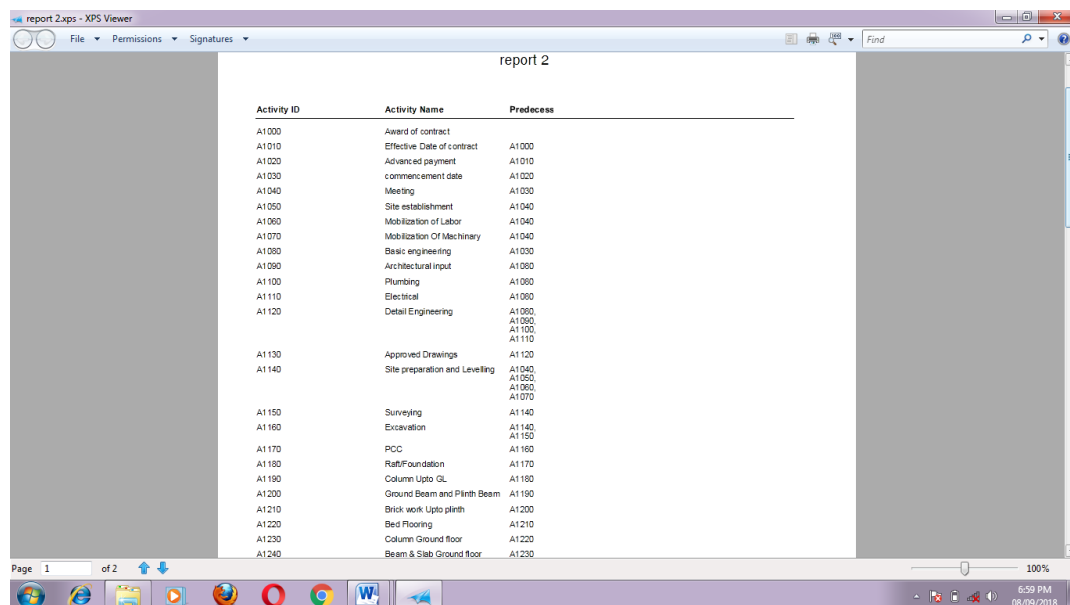
While organizations seek to attain success as regards project results, those facilities in search of enduring and viable development, seek success based on another dimension, specifically learning. While PMOs tend not to have significant short-term effect on the results of the project, their impact on learning and KAU institutional culture will be on long-term basis, to the satisfaction of personnel and stakeholders in KAU. Since KAU is in search of permanent and sustainable growth, use of PMO will enable it to fully grow and identify with other institutions when it comes to project managements. This chapter of the study offers a comprehensive description of the findings resulting from chapter 3 of this study. The subsequent chapter will focus on the discussion of these findings as it relates to the study topic.

What has been generally observed is that upon planning and scheduling through the use of primavera project program there was a considerable reduction in time. Figures 13 and 14 are indicative of such reports from primavera software. This means that this program is capable of enabling the project members to control the project duration thereby resulting in cost optimization. To plan, to monitor and control in addition to seeking improvement in the performance efficiency and effectiveness in projects implementation and management by used of a program like Primavera P6 program within any project in KAU offered the basis of comprehending the function of progress monitoring and control as well as timely accomplishment of any of the University project. The results portray accomplishment of this objective courtesy of the methodology utilized in monitoring and control. These results act as a guideline in comprehending the progress of any project especially in construction besides understanding the exact problems resulting throughout the procedure. The findings equally present some of the major hitches associated with carrying out the project. A resourceful and cost-efficient novel project management plan is realized.



Activity ID	Activity Name	Activity Type	Original Duration
A1000	Award of contract	Start Milestone	0
A1010	Effective Date of contract	Task Dependent	1
A1020	Advanced payment	Task Dependent	1
A1030	commencement date	Task Dependent	1
A1040	Meeting	Task Dependent	1
A1050	Site establishment	Task Dependent	5
A1060	Mobilization of Labor	Task Dependent	5
A1070	Mobilization Of Machinery	Task Dependent	5
A1080	Basic engineering	Task Dependent	10
A1090	Architectural input	Task Dependent	5
A1100	Plumbing	Task Dependent	10
A1110	Electrical	Task Dependent	10
A1120	Detail Engineering	Task Dependent	15
A1130	Approved Drawings	Task Dependent	30
A1140	Site preparation and Levelling	Task Dependent	5
A1150	Surveying	Task Dependent	2
A1160	Excavation	Task Dependent	45
A1170	PCC	Task Dependent	15
A1180	Raft/Foundation	Task Dependent	25
A1190	Column Upto GL	Task Dependent	20

Figure 9: Primavera P6 report 1



Activity ID	Activity Name	Predecessor
A1000	Award of contract	
A1010	Effective Date of contract	A1000
A1020	Advanced payment	A1010
A1030	commencement date	A1020
A1040	Meeting	A1030
A1050	Site establishment	A1040
A1060	Mobilization of Labor	A1040
A1070	Mobilization Of Machinery	A1040
A1080	Basic engineering	A1030
A1090	Architectural input	A1080
A1100	Plumbing	A1090
A1110	Electrical	A1090
A1120	Detail Engineering	A1090, A1100, A1110
A1130	Approved Drawings	A1120
A1140	Site preparation and Levelling	A1040, A1050, A1060, A1070
A1150	Surveying	A1140
A1160	Excavation	A1140, A1150
A1170	PCC	A1160
A1180	Raft/Foundation	A1170
A1190	Column Upto GL	A1180
A1200	Ground Beam and Plinth Beam	A1190
A1210	Brick work Upto plinth	A1200
A1220	Bed Flooring	A1210
A1230	Column Ground floor	A1220
A1240	Beam & Slab Ground floor	A1230

Figure 10: Primavera P6 report 2

An example of a creation of a practical baseline B1 using primavera has been presented in Figure 15 for Gantt chart.

The gantt chart's timescale has been done on weekly basis, while the association is clearly offered in the gantt chart.

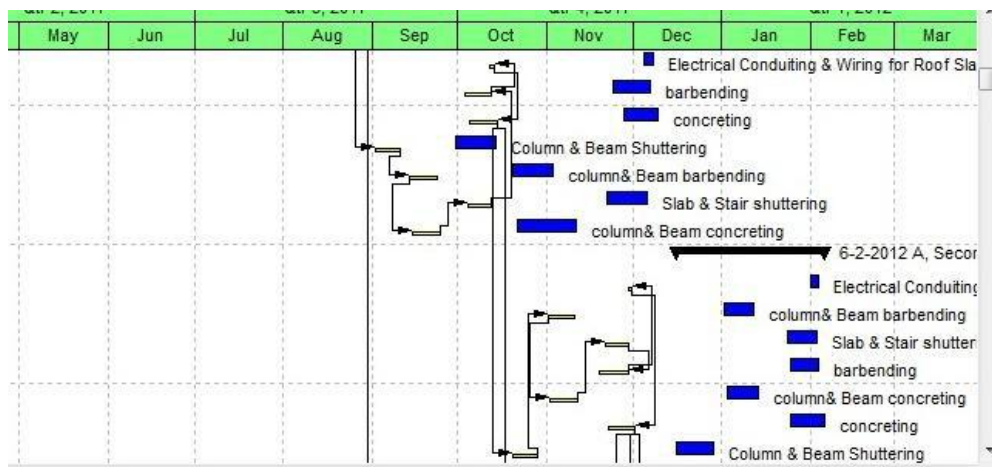
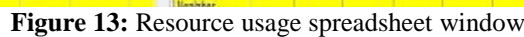
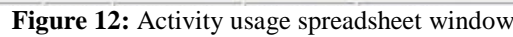


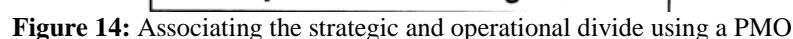
Figure 11: Gantt Chart Window

This is an example of the task being done days per week. This necessitates making of a typical 6-day worksheet

calendar inclusive of important holidays. The afternoon session includes a 1-hour break. The following pictures portray this information.



Just as mentioned by Rajegopal et al. (2007), “The PMO enforces executive accountability and transparency by connecting the organization’s projects to the business’s portfolio strategic decision-making stream”. The PMO offers information and support necessary in various decisions (such as ‘go/kill/hold/fix’) throughout a project, and may be incorporated into a stage gate methodology to enable thorough assessments of projects and specific stages in the life cycle of a given project Rajegopal et al. (2007).



these failures during execution of projects. Among these included communication bias or lack of it, shortage of support from senior management, shortage of amply skilled and experienced project managers, scarcity of implemented

solid procedures, and to some extent lack of finances. Owing to these defects and issues, the project team members resolved the following measures as an approach of ensuring that PMO is implemented effectively at KAU projects.

4.3.2 Managerial Insights

The need to acquire support from top university management is highly important since it is the most important factor in the success of PMO at KAU. Definitely the University's top management makes all decisions involving projects, budgets and project members. As a result, having the best team on PMO is significant to the development and growth of KAU's projects. It is very imperative to ensure executive leadership is boarded so as to ensure that the projects do not fail but embrace success.

In most cases, the need to have strong leadership is the project director who assumes the role of a project manager by overseeing the PMO. This is not a good approach especially in view of large institutions like KAU. It is imperative that the director is a well identified individual within the institution. One should possess the qualities of being able to deal with what seem as objects to project managers.

4.3.3 Hiring Competent Project Managers

The major factor in hiring project managers includes PMP qualified project managers, although this should not be the single consideration while recruiting a project manager. While PMP certification is considered an excellent requirement in ensuring that the hired project manager holds the best practices considered in handling and managing projects, it is equally of equal significance to ensure that the project management knowledge is founded upon good work ethics (Getahun, 2014), (Dietrich, Arto & Kujala, 2010).

4.4 PMO Processes

Irrespective of the duration of using PMO, there are certain processes that should be used for the PMO. The project managers should integrate the ten PMO processes into their business processes to improve the productivity of their work teams.

4.4.1 Project Approval

The first process is the approval of the project. In this phase, the managers will review the projects that should be implemented. The managers should identify a criteria for evaluating the projects to determine, which ones should be implemented and the ones to be abandoned. The analysis of the business case and the review project document is helpful in the decision-making process. The organization should establish a decision-making framework to guide the processes. The items that should be evaluated includes where the ideas of the project emerged from, the person responsible in making decision about the progress of the project, the information needed to make the ultimate decision, and what occurs after the project is approved. The PMO process was important in ensuring the business is functioning effectively.

4.4.2 Resource Allocation Process

Most PMOs undertakes the resource allocation process. The project managers should evaluate how to allocate the project

resources effectively. Skills and availability should be useful in deciding the projects for allocating resources.

An associated PMO approach was useful in deciding the persons to hire and retain in the organization because it is challenging to allocate resources effectively.

4.4.3 Project Escalation Process

The project escalation function sought to understand what happens when something is wrong. The process involved the development of a criteria on the type of project status that helps promote escalation and to whom. For instance, there is a need to identify the project delays on the strategic projects to the operating manager.

4.4.4 Risk Management Process

Every project managers have the responsibility to manage the risks for the projects. There is a need to evaluate the major risks and bringing out the major risks that affects the business operations. The PMO team should work on consolidating the risk profile for the projects in the company portfolio. The assessment of the risk exposure of the business is useful and works on addressing the current organizational initiatives. A comprehensive risk management program should deal with the overlapping between the projects and the tasks needed to deal with the project risks.

4.4.5 Change Management Process

The PMO is responsible in promoting the change management program. The managers should draft and define the change management process for the project teams. The approach is critical because the projects require some changes. It is impossible that most projects are able to achieve their objectives because the organization needs changes in business needs, user expectations, requirements, and the market changes. It is important to set up an effective change management process to enhance the flexibility of the project work to align with the dynamic needs in the organization.

4.4.6 Project Budgeting Process

The budgeting function helps in the consolidation of the project budgets and reporting of the overall cost of the projects. It also assists in responding on questions from the managers and the finance professionals and thus, helps to evaluate the allocation of financial resources.



Figure 15: Project Budgeting

The project managers should work on the proper management of the financial resources for their projects. However, there is a need to devise a standard process that guide mandated templates and approaches to process the

financial resources of the company in a standardized approach.

4.4.7 Project Reporting Process

The PMO should devise a good reporting program. It is not appropriate to respond to demand for adequate information on an ad hoc way. There is a need to develop a formal way

for reporting. These involves the following: the frequency of the reports, content of the reports, the target audience of the reports, and the techniques of sharing reports with the target people such as emailing them, production of hard copies, or the delivery in a presentation way.

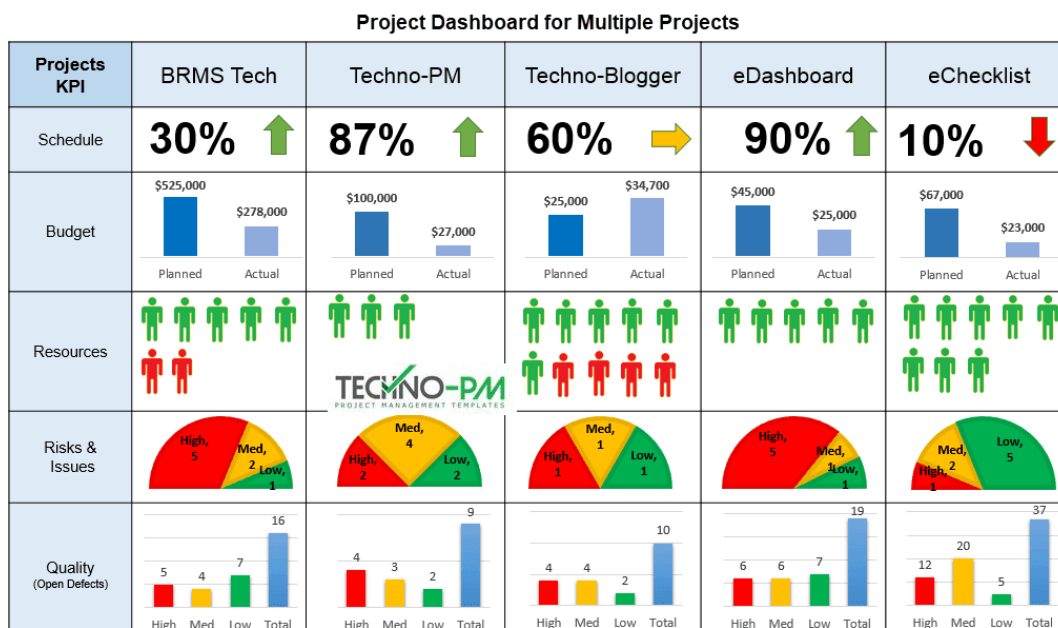


Figure 16: Project Dashboard

4.4.8 Project Prioritization Process

The process of project prioritization aligns with the project approval aspect. After a project is approved, there is a need to prioritize to guide all stakeholders on its importance and get a strategic view.



Figure 17: Project Prioritization

Nevertheless, prioritization is difficult to implement. When the requirement of the project changes, there is a need to reassess the priorities of the major projects. For instance, when there is a sudden changes to the regulations, it should be a major priority. The failure to shift the processes to handle the regulations might lead to the closure of the organization. The efforts to make changes in the organization is a huge priority.

The capacity to prioritize in an effective way is importance because the prioritization of the projects helps to obtain adequate funding, resources, and the management time.

4.4.9 Demand Management Process

The demand management process evaluates the workflow into PMO and onward through the delivery of project into the organization. The process reviews the control of the

workflow to ensure the organization is not overworked. For instance, it might be important to develop a new app for the business, but the resources are not available such as right capabilities. The function of demand management would push the organization to review how to obtain these skills.

It is diverse to get approval for the project or the allocation of resources because it undertakes the long-term view of the upcoming work. There is a need to evaluate the project delivery teams on the upcoming period to ensure they have the right skills and resources. Similarly, there is a need to evaluate the scaling back of the project resources among the projects.

4.4.10 Project Closure Process

Lastly, project closure process is critical and thus, there is a need to ensure smooth transition to the business as a common activity. In most occasions, the projects are completed in a rush and the business teams do not understand their roles effectively.

These ten PMO processes were useful in the implementation of the PMO.

4.5 The Role of PMO and Central Workflow

If the university has already implemented project portfolio management (PPM), it is the responsibility of the PMO to manage and facilitate the entire process. The responsibilities will include:

- Managing resource forecast or creating a resource capacity plan. This will help in understanding the availability of various resources for organizational projects
- Enable capture of project requests and ensure each of those requests have enough relevant information that can aid in the assessment of that project
- Maintaining an updated status of projects that are underway and those that have requests pending review
- Implement prioritization and scoring models for better assessment of the requests that should be approved.

Generally, projects come in two key categories. Figure 26 shows key project categories in a typical engineering department, as the case with KAU's engineering projects.

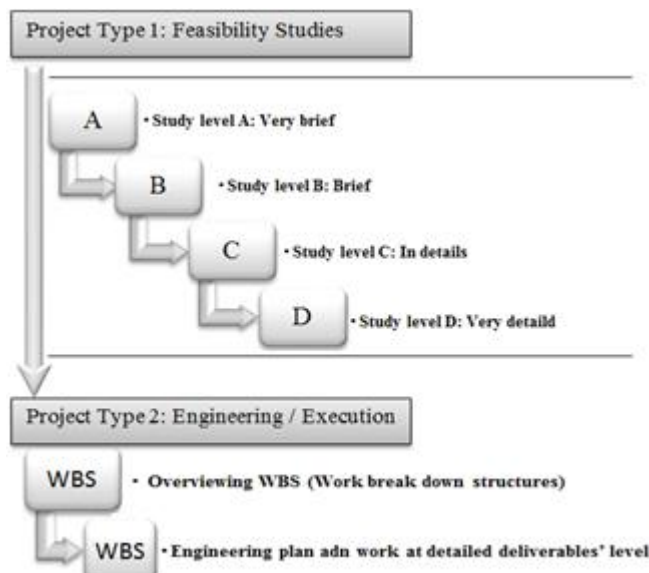


Figure 18: The two key project categories in engineering projects

The projects indicated in type 1 is often feasible. In terms of type 2, the projects are often complex and always focusses on the stakeholders compared to type 1 projects. For instance, it is common that project teams in construction sites take part in diverse elements.

4.5.1 Project Matching- PMO and Project Task

In KAU engineering project, the departmental head identified as the PMO coordinator, indicated about one practice regarding the best project task allocation exercise; involving tasks allocation to the right people. The checklist comprised various questions, intended to profile the new project members or project manager concerning the areas one requires special assistance. The purpose here is not about inquiring of the technical expertise but rather estimate their compete cognizance of the university requirements as regards deliverables of the project in addition to evaluating their ability to carry out the task within acceptable time frame. According to the PMO coordinator, the PMO and the department seeks to establish an excellent environment where project members can explain their gained expertise and areas they require additional experience. This offers an environment where knowledge sharing and proper project performance are done to lessen project reworks.

4.6 Chapter Conclusions

Factors affecting time and cost in King Abdulaziz University projects tend to affect the difference between the duration of a project and the total expenditure, and they include: the specification of the project, project location, repair or new project options, project timescale, site characteristics, project cost's inflation, raw materials' price fluctuations, underestimation of the construction cost. Project specification means the physical condition and design of a project. Considering the KAU projects results, there is a direct association between detailed dimensional specification and size of a project and the time as well as the cost considered in the completion. In view of project location, geographical factors and site location tend to influence various KAU projects. The proximity of the project from all required resources means increased costs based on manpower and availability of materials. On repairing or erecting new projects, the findings indicate that new projects are quite expensive comparing to repairing of existing ones. This is so since costs associate land, service provisions, etc. are not inclusive in the project repairs. On project timeline, bigger projects are associated with increased time. All activities in a project are dependent of each other due to delay factors. Project costs' inflation has been associated with commodity inflation and over-budgeting eventually takes place.

5. Conclusion and Future Work

5.1 Conclusion

In summary, whenever there is an idea of creating new projects, there are several factors that come into play, which must be taken into consideration to lessen time and costs, while increasing efficiency and benefits. The current plan by the University of KAU to create and implement PMO, will not only ensure the smooth run of projects but also provide the success of the currently existing projects. It is never easy to deal with different projects alongside individuals, assets, emerging technologies, and other project correspondence without a proper institutionalized office, otherwise high potential of failure will always be the experience. As such, the idea of building an increasingly bringing together administrative structures to manage several projects at ago through the implementation of Project Management Office (PMO) is ripe. Although the establishment of PMO will not have a significant short-term effect on KAU project results, it will significantly impact on learning and KAU institutional cultures. The aim will be to create a long-term solution that will satisfy all stakeholders, including personnel and other relevant departments in the University. Again, implementing the use of PMO at KAU will ensure permanent and sustainable growth, as well as help the University to identify with other institutions concerning reputable and successful project management. PMO project members, according to the findings in this study, indicate a close working relationship across departments. Based on these study findings, creating a PMO would involve gaining the KAU university management and executive support. Like any other institution, the role of PMO would be to offer strategic and operational divide functions within the facility's projects by enforcing accountability and transparency. The PMO would achieve this by connecting various projects of the

University to the business portfolio strategic decision-making stream. Another role of PMO would be to offer information and provide necessary decision support throughout a project. Apart from benefits, creating PMO in the University would also present some demerits that KAU management must be aware of to avoid becoming victims of every project failure from the project implementation/execution to completion. These shortcomings would include lack of communication or if present then biased, shortage of senior management support, shortage of exceptionally skilled and experienced project managers, and inadequate project funding. These findings will enable the implementation management at KAU to rethink and formulate the best ways of implementing PMO to establish appropriate countermeasures of project failure. Hence, run every project effectively. The operation of Project Management Office must be a value-adding operation, which helps project managers get their work done embedded with serious PMO processes across the projects. The process shall cut across project approval through resources allocation, escalation of project, risk management, change management, and project budgeting, reporting, project prioritization and demand management, to project closure.

Similarly, like any other institution, KAU's PMO will be charged with various roles; however, the University will have to implement the project portfolio management (PPM) for the PMO to discharge these responsibilities effectively as well as to manage and facilitate the entire process of projects. Before undertaking any project process, any proposed project must undergo two key evaluation categories, namely, project feasibility study and project execution or engineering, which are crucial for the success of any project. Generally, PMO is like a born baby that must be babysat, crawled, made to stand, and set to run and run successfully.

5.2 Recommendation of the Study

Succinctly, it is true that organizations like KAU are in desperate need of PMO, which is fair enough project management. Most PMOs fail despite research tools and frameworks employed to realize the project's objectives and to deliver benefits. As an organizational institution, the role of Project Management Office (PMO) would be to maintain the projects' standard as well as offer resourcing that can support the various processes of project management across KAU for projects. The Project Management Office would also be engaged in the management of project programs or portfolios, including strategic project development and management. In the old days, many organizations associated PMO with Information Technology (IT). Besides, many industries adopted the application of the PMO approach.

Nevertheless, most organizations still lack proper frameworks for describing PMO functioning and specification. Therefore, future studies are recommended, from an exploratory point of view, to provide insights into implementing the PMO approach in large organizations in organizing and managing projects, including developing frameworks to describe the potential PMO functions, processes, and structure. PMO practitioners can make use of identified frameworks to design and develop functional PMO

to improve the project management processes' effectiveness and efficiency. These study findings established that implementation of PMO is associated with various shortcomings would include lack of communication or if present then biased, shortage of senior management support, shortage of exceptionally skilled and experienced project managers, and inadequate project funding. These findings can be applied by other researchers to develop various research frameworks needed for further understanding of the PMO implementation theory, including its functional, practical, and structural implications.

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