Concepts of Project Management in Information Technology - Project Management Office (PMO)
Introduction

The Project Management Office (PMO) is a relatively new concept which was realized with the increasing complexity and sizes of the projects that organizations faced. Several definitions of the PMO exist. However, in simple terms:

"A project management office is a staff function that builds, maintains, and improves the project management policies and procedures in the organization" (Oracle, April 2009).

In addition, a PMO supports project managers along with their teams in order to ensure effective application of critical project management principles and techniques to achieve project success. Most projects fail because management often underestimates the resources required, does not organize an appropriate team, or neglects to allocate staff adequately.

Support from senior management and planning are prerequisites for success (Engle, 2005).

Organizations face several challenges when considering the implementation of PMOs. Organizations that are already on the way to implementation of a PMO, or have established a PMO, also often face difficulty defining the purpose of the entity or managing their PMO effectively. This article aims to explore some of the key aspects of PMOs including its responsibilities, implementation, and effective management.

The Project Management Office (PMO)

Most projects start to achieve a specified objective and none of them start with an objective to fail. Yet 19% of all projects fail (i.e. to meet their specified objective), and 48% of projects face significant challenges like budget overruns, delays, or products that do not completely meet all required objectives due to compromised resources (Santosus, 2008).

Often times, these difficulties can be due to the undocumented project management methods,
uncontrolled and reactive delivery, unrealistic budget or time expectations, limited planning, or lack of commitment from senior management (Oracle, April 2009).

With increasing number of projects in an organization, the risk of failure increases due to the sharing of resources and lags in oversight. At this point, it becomes increasingly important to define key project management processes and develop metrics and best practices for keeping projects on time and within budget. This phase for many large companies usually means implementing a PMO. Although there are well defined methods to implementing and effectively managing PMOs, there is no specific model which fits best for all. Each PMO model is often customized to meet the needs of the organization it serves. However, all models have key characteristics that are generally common to each model. Hence, it is found that instead of defining each possible model, exploring characteristics of successful PMOs are of significant importance to the understanding of the subject.

The PMO structures project management into an organized systematic approach which includes project definition, project planning and control, issue management, risk management, change/scope management, reporting and communications, scheduling and project administration, quality management, and financial management. With large corporations, these tasks often become commonly used and hence a PMO can provide structure and procedure to an otherwise random and overwhelming process.

Although there is no guarantee for success with a particular model of a PMO, in general it is found that the way an organization values the PMO, the role of the project manager, and the interaction between the supporting organization and the manager play a significant role in the success of the PMO. It is found that PMOs that are successful often
make an impact on the organization's success by performing the following tasks effectively (Egeland, 2009):

- Aligning project delivery with strategic business goals and priority.
- Requiring that every project have an effective project manager.
- Implementing an appropriate project management methodology.
- Consistent management and oversight of the project portfolio.
- Obtaining and maintaining company leadership support.

Several levels of PMOs exist which can be implemented at different phases or authority of an organization (Andersen, Henriksen, & Aarseth, 2007).

**Responsibilities and Tasks of the Effective PMO**

PMOs are generally responsible for a variety of tasks and these can vary based on the industry of the organization, the size, and the resources available to the organization. However, it was found that among the thousands of tasks performed by PMOs there are several that have emerged as a common denominator of a number of successful PMOs in reputable organizations (Andersen, Henriksen, & Aarseth, 2007).

In this article, I would like to discuss the top tasks of PMO. They found that PMOs establish, continually develop, and manage shared methodology and processes for handling of projects in the organization. Often a project model forms the basis on top of which there are well defined process descriptions, routines, tools and so on. In addition, PMOs provide training and competence development within project management, by offering courses through the PMO or providing external training.

The PMO also offers support to project in the form of methodology and tools, participation in meetings, and presenting recommendations and consulting. Most PMOs are clear about not taking charge of the project. They are simply there to maintain a certain distance and act as consultants for the projects. The PMO also contributes to the governance of the processes of the project. This would include proposing new projects, making sure that
the decision making process is justified, and selecting projects. However, most PMOs are limited to making recommendations, but they do not possess any formal decision making powers (Andersen, Henriksen, & Aarseth, 2007).

PMOs also offer project quality assurance at different stages which could range from evaluating the decision basis for documents in the project selection phase to the midterm/post project evaluations and peer reviews. While doing the tasks discussed earlier, the PMO also offers support to the project owner. This means that they support management of the organization and those in charge of projects rather than focusing only on a single project in its entirety. This can include various quality assurance, project development consulting, and competence development advice (Andersen, Henriksen, & Aarseth, 2007).

Identifying the need for a PMO

Several companies often debate the need to establish a PMO. According to a white paper by Oracle in their PMO Series, a need for a PMO exists when the following challenges are observed to reoccur become repetitive (Oracle, April 2009):

- The scope of the projects continually changes during its lifecycle.
- One group of resources manages multiple projects at the same time.
- The size and scope of projects requires the company to employ many outside contractors and vendors.
- Project leaders must present consolidated reports and metrics representing all projects.
- Clients and management require clear communication from one source.
- When projects repeatedly finish later than planned or over budget.
- When projects require resources from different geographic locations.

There are several triggering factors of PMO implementation processes. In addition to the ones discussed above, sometimes there are large differences in how the projects are run, thus a PMO is established to ensure a uniform project execution based on best practices. Problems associated with cost and time overruns in the projects also indicate a need to implement a
PMO thereby ensuring a central competence unit within the project management organization. Sometimes, companies lack qualified project managers. This leads to the idea of the PMO which would produce and develop such competence within the corporation. Finally, if lack of holistic practices is seen with regard to project selection, a PMO can appoint responsibility to provide an overall view on the project portfolio (Andersen, Henriksen, & Aarseth, 2007). "On an overall level, the objective of a PMO will always be to realize the given definition of the project management office, i.e. to ensure a systematic handling of key project management related tasks." (Andersen, Henriksen, & Aarseth, 2007)

**PMO Stages:**

The PMO should be separated into the four stages to ensure successfully executed projects. The first stage known as the *Projects planning stage* is developed to describe the tasks that will lead to the completion of the projects. The extent of the projects, the timescale in which it must be completed and the resources needed to carry out the projects are all to be determined at this stage.

The second stage known as *Projects Scheduling* involves breaking each phase into fine detailed tasks, mapping them out with the use of projects software package such as MS projects and setting targets that must be reached in order to complete the projects.

The third stage in the PMO is known as the *Risk Analysis* and is carried out to ensure that the company is prepared for any potential problems that may occur during the duration of the projects. The probability and severity of such problems arising are determined, and control measures are set in place if these problems were to occur.

While the projects are being carried out, all stages are monitored to ensure that each step in the planning stage is being followed in order to avoid complications arising. This
stage is known as "Project Tracking". Tracking ensures that the company is not going over budget, is on-time with each phase and that the correct resources are being utilized.

At the start of each of these projects it is the company's priority to carry out and complete the task to a remarkable standard. A successful PMO must be put in place in order to do this. A successfully run PMO follows the four stages outlined above. The PMO firstly has the role of defining a set of standards, guidelines and methods which are to be utilized for the duration of the projects. This in turn will improve projects management within the company, complete projects on-time and within budget, ensure quality throughout the projects, improve communication between all personnel involved and improve decision making in order for the projects to reach their goals.

It is also important to note that the PMO can aid each of the projects by analyzing previous executed work. Each construction task differs, however, previous similar projects can be evaluated as guidance for the present projects and managed in a similar approach to ensure complete projects satisfaction. The PMO allows the company to collect information on these previous projects and store them for the use of future projects. This information therefore, is valuable in the sense of allowing any future projects to learn from any succession or failure from previous projects.

Another function of the PMO includes a project support team who take on the role of estimating and budgeting of the projects. The support team also develop schedules and plans for the projects and give constant updates of the projects’ status against the plan. Project support, maintains tracking and progress reports for the projects.

The PMO is also the central area for establishing and maintaining software tools which are needed to carry out the projects. The Project support team identifies and integrates
the software and constantly monitor and maintain the project's performance. It is critical that the above information of the PMO is clear and understood by all personnel within the construction company in order to avoid difficulties arising. If the role of the PMO is not distinct it may result in tasks being completed incorrectly or completely overseen resulting in major errors and delay within the projects.

It is important to differentiate the role of the project manager and the Project Management Office in order to fully understand how the PMO operates. The roles of the PMO and the project manager are clearly different, however, they are both necessary in ensuring success of each of the projects. The project manager undertakes the role of managing and delivering the projects, whereas the PMO aids the project managers in achieving these goals. The PMO contains information of project managers involved, and documents their skills and experience.

The PMO is responsible for training, mentoring and development of the project managers within the company. The PMO classifies the competence needed by the project managers in order to receive high team member participation. The main purpose for this is to build an effective relationship between each project manager involved in order to allow them to correctly communicate and support each other for the duration of the projects. This in turn will improve project's success.

**Types of Project Management Office (PMO)**

The type of PMO implemented into the companies may vary from company to company depending on their needs and objectives in order to undertake and achieve the projects requirements.
The first type of PMO is known as the "Supportive PMO". This type of PMO allows project managers and others involved to deliver projects more successfully. Supportive PMO does not control or guide the project team, instead support is offered to them through training, mentoring and reporting. If the company is implementing the PMO for the very first time, then this is the best type of PMO to use. It adds value by providing this training, mentoring and reporting without having to take the responsibility for the controlling and directing of the projects.

The second type of PMO is known as the "Controlling PMO". This type of PMO portrays a more disciplined approach to leading the projects. By implementing controlling services such as project reviews, inspections, audits and performance assessments, it allows the PMO to have an influence over the projects performance and delivery. This type of PMO also can also ensure that quality standards are being enforced, the processes are being implemented and any risks are being managed. If the PMO is already established within the company then this is the best practice to use as this can have a direct influence on the success of the projects.

The third type of PMO is known as the "Directive PMO". This type of PMO is the lease common used within companies, however, at times it can prove to be the most effective type of PMO. This PMO offers directive services to the company, supporting and controlling the projects while also being responsible for the overall running of the projects. Each Project manager within this PMO reports to the PMO Director who is their supervisor. This aids to round up all project work within the company to one specific department. This particular type of PMO is best for companies who have a small amount of high risk projects. While it is responsible for the overall outcome of the projects, it allows direct control over project
resources which in turn may enhance the projects succession but restrict flexibility during the
process.

It is however not feasible for every construction company to set up any of these
different PMO types. This is due to some companies being too small or simply not wanting to
deal with the timely establishment, monitoring and maintenance of the PMO. In order to
solve such a problem, companies can turn to outsourcing. This involves the companies hiring
PMO services from outside these firms to work with them to ensure efficiency in projects. As
it is a time consuming process for the PMO to gain efficiency, outsourcing aids the
companies. The learning phase of how the PMO works is not needed by those involved if
they turn to a third party to simply carry out this process for them. This also allows project
managers to focus on their work rather than the constant maintenance and monitoring that is
involved within the PMO.

While there are many different roles and three different types of the PMO, it must be
considered too, that there are a number of advantages and disadvantages that come along with
these. The PMO brings many advantages to construction companies while they are in the
process of executing projects. A common problem in these companies is that, many projects
seem to run over time, over budget and high quality standards are not met. This occurs when
the standards and processes are not fully implemented. The PMO however, ensures that
projects are to be run more efficiently and successfully as the scope of the project is clearly
defined, the roles of the PMO itself is defined and the processes are implemented, maintained
and monitored to a high standard throughout.