An exploration of project management office features and their relationship to project performance

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Abstract

The advantages of project management have been well documented, but project failure rates still remain high. This suggests continued exploration of new process models and organization structures to nurture strong project performance. One important candidate for improvement in this ongoing journey is the project management office (PMO). This paper is based on a two-year empirical study that investigated the establishment and use of PMOs and the environmental conditions in which they operated. It also identified and assessed an array of PMO functions and services and their influence on reported project performance. The core results were generally favorable toward the utilization of such features, with project standards and methods showing the highest correlation to performance in each of the two distinct populations.
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1. Introduction

Projects have become important instruments for change and development in organizations [1]. Gareis [2] and Lundin [3] suggest that the broader utilization of projects requires a new orientation in project management (PM) and a new model for more effective operations in project-driven organizations. Munns and Bjeirmi [4] showed that more effective PM offers great potential for improving overall organizational performance by enhancing the prospects for project performance and minimizing the likelihood of failure. In spite of the advantages of using the project approach, however, Jessen [5] suggests that there is also a significant problem. Because of the one-time nature of projects, an organization may often derive little benefit from previous successes and failures due to a lack of effective knowledge transfer. The study reported in this paper examined the question of what measures organizations have taken to enhance transferability of lessons learned from previous projects, and how these measures have influenced project outcomes.

There are many dimensions for evaluating project performance [6,7], while it appears to be easier to develop consensus on determining project failure. The documentary record is replete with reports of high rates of project failures across all industries, government agencies and national boundaries [8–10].

One approach to studying project performance has been through the investigation of critical success factors (CSFs) as predictors of performance. For example, Pintos [11] identified 10 CSFs, ranging from project mission, top management support, project schedule/plan, client consultation, technical tasks, communication to personnel recruitment/selection and training. A natural next-step would be to determine how organizations could systematically foster CSFs on an ongoing basis.

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Another conceptual guideline was provided by Might and Fischer [12], who examined how project organizational structure interrelated with outcomes. They observed structures ranging from functional design at one extreme to a dedicated project team at the other, with a matrix format somewhere in between. Their results suggest that while neither extreme showed any notable degree of association with performance, the intermediate forms did possess some positive relationship to performance. Their study pointed to the potential of a broader inquiry into alternatives at the organizational level of analysis.

2. Background

A *project office* (PO, also be called a *program office*) is an organizational entity established to manage a specific project or a related series of projects, usually headed by a project or program manager [13]. A *project management office* (PMO, also called a *center of excellence* or *center of expertise*) is an organizational entity established to assist project managers, teams and various management levels on strategic matters and functional entities throughout the organization in implementing PM principles, practices, methodologies, tools and techniques [13]. A PMO carries a much broader mission and was the focus of this study.

Dinsmore [14], Fleming and Koppelman [15] and Knutson [16] call for the establishment of such an office to improve PM effectiveness, particularly by enabling the acquisition of knowledge from earlier failures and successes and by providing a range of support and facilitative services not only for projects but also for various management levels and support units. A study of PM best practices in large functional organizations [17] reinforced the notion that there is value in utilizing PMOs. Block and Frame [18] suggest that an ad hoc approach to PM leads to inefficiencies and can even be dangerous, while establishment of a PMO can foster consistency and nurture PM professionalism. They propose the following characteristics to help improve an organization's PM effectiveness:
- Project support to offload administrative burdens such as reporting and software operations from project managers.
- Consulting and mentoring, whereby professional PM expertise such as proposal development and project planning is provided.
- Development and enforcement of standards and methods to leverage best practices and to ensure members of the organization are all "speaking the same PM language."
- Training to enhance individual skills and to encourage professional certification.

- Assistance in staffing projects with appropriate project managers.
- Playing a high-tech project support role by enabling virtual project offices across geographical and organizational distance.

Bates [19] further adds that PMOs should also assume tasks such as providing project risk assessment, performing post-project evaluation services and ultimately leading the organizational transition to an effective project environment.

Little systematic empirical research had been done to test the growing body of anecdotal evidence, however. The major objective of this study was to enhance the strength of the empirical research base that complements these findings, examining the particular question of what correlations might exist between the presence of PMO features and project performance.

To clarify the differences and often interchangeable use among the names of PMO, PO and other possible forms (e.g., SPO – systems program office), this study used the notion of *PMO presence* which focused on the functions and services an organization performs and provides, rather than which name was used. This approach permitted the inclusion of "intermediate"organizations which had no formally established PMO entity but did have resources providing PMO functions and services to project managers and teams.

3. PMO presence

Although a standard set of PMO presence features has yet to be agreed upon in theory or practice, the literature review led to the identification of the categories enumerated below.

3.1. Developing and maintaining PM standards and methods

A PMO can develop and maintain a set of standards and methods, becoming a steward of documented PM expertise within the organization. These standard procedures should be detailed enough to provide guidance but not so excessively detailed as to inhibit creativity. The following list includes representative areas, each of which was reflected in the survey instrument: proposal development, change management, risk assessment, documentation standards and project closeout.

3.2. Developing and maintaining project historical archives

The PMO can provide a centralized archive to systematically collect and store project knowledge such as lessons learned and templates. Representative areas include records of project performance such as status re-