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Project Management Assurance

Research in Progress

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ABSTRACT

CIOs are increasingly held responsible for generating a positive return on IT project investment. There is great interest for devising ways to assure successful project outcomes. By assessing the project throughout its lifecycle there is an increased chance of achieving success because potential risks can be identified and addressed before it is too late. In this paper, we introduce the idea of project management assurance (PMA). Project management assurance (PMA) is a set of assurance activities that are integrated with the IT (information technology) project management lifecycle. An external group, independent of the project team, performs the assurance activities, which includes continual review of control mechanisms to assure adherence to standards, best practices, and procedures. The objective of the PMA process is to assure project success by reducing risk, continuously assessing internal project controls, and improving overall project quality while conforming to the stated schedule and budget requirements.

Keywords

project management, assurance, project management assurance, quality assurance, project success.

INTRODUCTION

Information Technology (IT) projects are infamously difficult to manage and many of them result in failure. Per the Standish Group¹ (2015), two out of three IT projects either fail or are challenged and do not adequately deliver planned outcomes, resulting in significant consequences for organizations. These projects often lead to cost and schedule overruns, and unmet requirements, while others are complete failures (ibid). In fact, it has been estimated that each year project failures cost the US economy in the range of \$50 to \$150 billion (Hardy-Vallee, 2012).

Successful IT projects are critical to organizational success and to sustained competitive advantage. Recently (2015), it was reported that the Los Angeles Unified School District's \$1.3B eLearning tools project failed² due to failure to gain stakeholder support, missing requirements, quality related issues, and failure in gaining stakeholder support and fully recognizing the transformational shift in learning that e-enabled learning represents. In another example, Bank of America implemented a project in 1988, which caused the bank to lose control of several billion dollars of trust accounts (Nelson, 2007). The bank eventually found the money; however, the loss resulted in customer dissatisfaction and lost customers because many depositors withdrew their money. The documented reason for the failure was poor risk management and planning. There are several evidences like these that demonstrate the critical nature of IT projects. Unsurprisingly in recent years, organizations are holding CIOs more accountable for IT investments by ensuring that every IT project has a defined business value (O'Donnell, 2008). Thus, there is enormous interest from practitioners to find ways to assure successful project outcomes to avoid outcomes like those described above.

Researchers have argued that uncertainty in IT projects (McFarlan, 1981), (Nidumolu, 1996), affects them gravely. Additionally, IT project failure is often the result of poor planning, poor project management, and poor measures to assess and manage the risks involved in these projects (Charette, 2005), (Glass, 2006), (Keil, Cule, Lyytinen, & Schmidt, 1998),

¹ <https://www.infoq.com/articles/standish-chaos-2015>.

² <http://calteam.com/WTPF/?p=7626>

(Nelson, 2007). To reduce or mitigate risk, project teams need to apply effective risk management throughout the project enterprise. (Boehm, 1973) stress the importance of project managers in risk assessment and state that successful project managers are good risk managers. However, since this theory is not put to action, project failure rates continue to increase (Keil, et al., 1998). Risk management is the least mature of all the PMBOK knowledge areas, which is cognized below. Figure 1 shows process maturity of each knowledge area for three major industries – Engineering and Construction, Telecommunications, and Information Systems.

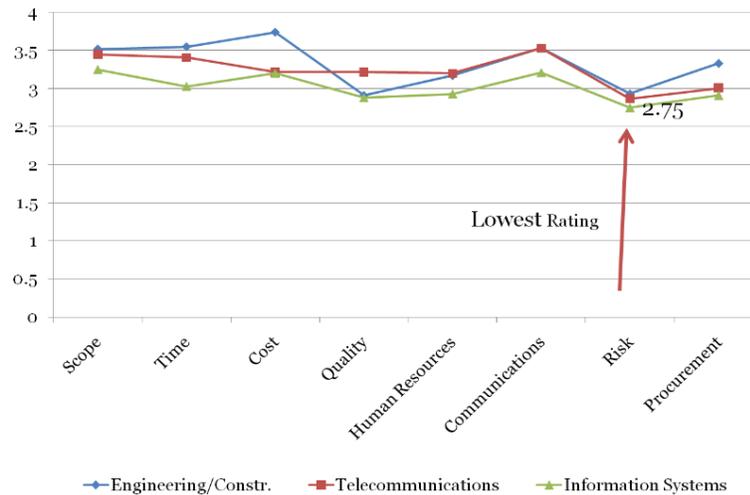


Figure 1. Project Management Maturity by Knowledge Area (Ibbs & Kwak, 2000)

To manage complexities, uncertainties, and provide methods for assessing project performance, we propose implementing an assurance process that considers the uniqueness of the project while accounting for potential risk factors at each stage of the project life cycle. In a survey by (Kulik, et al., 2001) of 260 software organizations worldwide, respondents indicated that effective risk management can provide several benefits to a project. In addition to anticipating and avoiding problems, risk management practices helped project managers prevent surprises, meet customer commitments, reduce schedule slips, and reduce cost overruns (Kulik, et al., 2001).

Next, we describe a model of PMA and how it relates to the project management lifecycle.

PROJECT MANAGEMENT ASSURANCE

The concept of project management assurance (PMA) evolved from software quality assurance (SQA) models. Here, we extend the software quality focused model to the IT project management domain with an emphasis on assurance from an audit and risk perspective. To minimize risks, we looked at how we could successfully merge these two methods. Like SQA, PMA requires careful planning and gathering of artifacts for vigilant evaluation to minimize risks and assure quality outcomes. PMA emphasizes the importance of assuring that the project stays under control while meeting the schedule, budget, and quality requirements.

In this paper, we define *project management assurance (PMA)* as a set of assurance activities that are integrated with the IT project management lifecycle. An external group, independently, performs the assurance activities, which includes continual review of control mechanisms to assure adherence to standards, best practices, and procedures. The objective of the PMA process is to assure successful project outcomes by reducing risk, assessing internal controls, and improving quality while conforming to the stated schedule and budget constraints. By countering risks using PMA, failure can be reduced

(Boehm, 1973), (Charette, 1989). Furthermore, using an internal certification authority and a well-defined project management process, PMA can potentially assure project success.

The premise behind PMA is that it is not instantaneous, but a continuous process that provides assurance throughout the project lifecycle. PMA provides assurance of successful outcomes by reducing risks, assessing internal controls, improving quality, while adhering to the stated schedule and budget constraints. A continuous assurance process can identify problems early in the project lifecycle and provide CIOs with relevant information to make decisions on whether to provide additional funding, modify the project goals, or cancel the project altogether. PMA should integrate with the phases of the project management lifecycle (PMLC) which include initiation, planning, execution, monitoring and control, and closing. Figure 2 illustrates how PMA can be integrated with the PMLC.

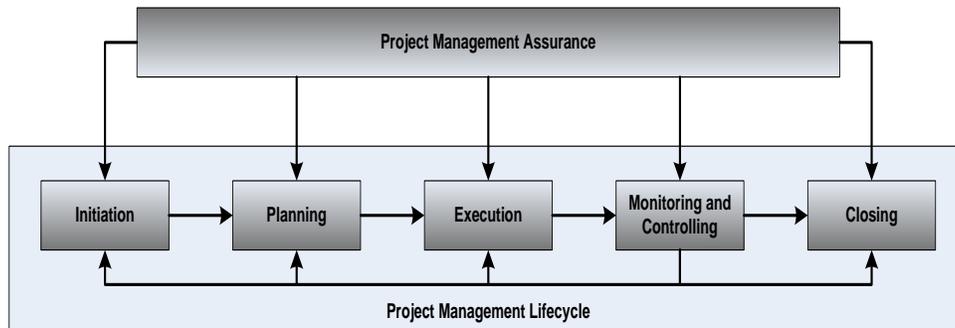


Figure 2. PMA integrated with the PMLC

NEXT STEPS

Based on our experience and evidence from the literature, we believe that implementing an assurance process can greatly improve the chance of project success and assure a high-quality outcome. PMA provides an opportunity for practitioners to continually review artifacts of each project phase and to mitigate risks associated with IT project management. Use of this process in practice will provide empirical evidence to support or refute our contention about the value of such an approach. We plan to get feedback about PMA using a survey distributed to PMI members from two geographically dispersed PMI chapters – one in Omaha, Nebraska and one in Dallas, Texas. Then, we plan to pilot the process on multiple projects to determine the effectiveness of PMA in reducing project failure. We will do this by using the process on specific projects and comparing the results to other projects that are similar in scope and size.

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