

The Value Proposition of Planning

2009 Benchmark Study - Executive Summary

Compliments of



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INTRODUCTION

Information Technology organizations are dealing with an increasing dilemma; how to deliver quality solutions while project schedules and budgets continue to shrink. “Do more with less” is the strategy; meanwhile the pressure mounts to remain nimble and responsive in the face of constant change. Performance in these less than ideal conditions is not only imperative, it is now the norm and expected. The search for new strategies to quicken delivery and reduce costs is hit or miss and time consuming. Are there practical, low cost, and reliable methods available to meet today’s business demands and increase project success levels?

Software Quality Associates (SQA) conducted a Benchmark Study in search of this answer. The study was aimed at correlating current Program Office, Project Management, Measurement System and Software Development practices within an organization to project success rates. More importantly, it was designed to uncover the most essential set of activities that, if conducted in an integrated manner, will improve project success rates (on-time and on-budget delivery), increase the quality of deliverables, without adding significant cost.

Our intent is to support ongoing best practices, articulate common challenges, and generate dialog that will in turn improve and strengthen practices currently used for software development.

PARTICIPANT SUMMARY

- **Industries;** Financial Services Industry (41%), Insurance (26%), Health Care (18%), and Service/Retail Industries (15%).
- **FTE and Contingent Workforce;** 80% represent companies with headcount numbers exceeding 5000 (FTE and Contingent Workforce combined).
- **Participants;** 85% Executive / Senior Manager – Director Level, while the remaining 15% Senior Technical Level. 60% were representing work units in the 51 - 100 person range.
- **Spending;** Participants that reported spending higher dollars on QA, Testing, and Automation activities also reported project success rates of 75% and greater. This same group of participants had difficulty identifying their organizations actual costs of Project Management, Release Management, and Configuration Management.
- **Portfolio size;** 21% are supporting small application portfolios (50 or less), 24% medium (51 - 100), and 54% have large, over 100 applications / systems in their portfolios.

INTENT AND APPROACH

We explored the activities of the following seven key disciplines within Software Development environments and the impact they have on project success rates:

- **Program Management Office;** The group within an organization (IT or Business) responsible for managing the pipeline of application development work as well as definition and maintenance of standard practices related to Project Management, Quality Management, and Audit/Compliance (against both internal and external standards).
- **Project Management;** In particular, Software Project Management and Software Project Tracking and Oversight. These are the activities that are conducted to ensure that reasonable Project Plans and Schedules (including Resource Management), Quality Plans, and Risk Management Plans for the development of software are created and managed.

- **Methodology and Process;** Specifically Software Development methods and Quality Assurance, defined as the process that is used to assess whether a project is likely to meet customer requirements, be delivered with good quality, ensure effective integration of the current software development methodology with project management activities, and to verify adherence to methodology and process standards.
- **Measurement System;** Data currently being utilized to predict and measure the quality, timeliness, and cost of the software solution being developed. Also addressed were what data, when available, would communicate project progress, but more importantly what data would communicate the value of development and testing activities and how to communicate development value to the Project Stakeholders.
- **Defect Life Cycle Management;** The activities that are conducted in management of defects throughout the Software Development Life Cycle. Where are defects being introduced, found, and fixed. Cost per Defect was explored as a measure of release readiness.
- **Test Management;** The activities conducted to plan, develop, execute, and assess all testing activities within the overall software development effort. Also explored was the initial introduction of testing to various stages of the Software Development Life Cycle.
- **Performance Engineering;** The methods used for the support of performance-oriented software development activities required to ensure appropriate performance-related product quality.

SUMMARY OF RESULTS

Study results revealed that certain key activities can significantly improve project success. In fact our findings identified a key set of core principles exist within organizations enjoying project success levels of 80% or greater. This group of participants demonstrated the use of most if not all of the following:

- **Centralized control of project resources;** Use of formalized methods (independent of an implemented tool) to manage their project resources at the Program level during inception of the project and at the Project level (from Requirements on through Release).
- **Formalized Project Tracking, Risk Management, and Quality Planning practices;** In combination with project schedules, risk and quality plans are created to address not only quality control activities such as testing but also activities such as code reviews, project reviews, release readiness indicators, and risk factors.
- **Development of Test Strategies and / or Test Plans in the early phases of the Software Development Life Cycle;** Address and provide a clear vision for the full spectrum of testing by developing Test Strategies and Plans in the Requirements and / or Design Phases.
- **Manage defects in the early phases of the Software Development Life Cycle;** Address defects in the Requirements phase when the cost to fix a defect has minimal impact to project cost and schedules. A significant number of participants that reported project success rates at 50% and below did not start this activity until the Construction/Code phase.
- **Dedicated Software Quality Assurance Resources;** Identify a standard set of activities and artifacts for each project and a centralized group or, at a minimum, dedicated resources (full time or contingent workforce) to provide governance and oversight of process requirements and project pipeline activities.
- **Measurement System Maturity;** Have a defined and repeatable measurement system process and measures are integrated into the information needs of the project decision makers. Metrics portfolios are expanded beyond defect and project metrics. There is an understanding of the cause and effect relationship between quality indicators and they are utilized as predictors and criteria for release readiness.

- **Return On Investment of Performance Testing;** An achieved return on investment of their performance testing efforts have three things in common: 1) Performance Testing is required, 2) Performance is addressed in early phases of the Software Development Life Cycle, and 3) Performance measures are used as a quality indicator for Release Readiness.

WHAT'S NEXT?

Based on these findings it can be argued that the “Value Proposition of Planning” equates to the promise of improved project success rates. Those participants that reported having a well defined and an integrated set of early life cycle quality assurance activities were typically the most successful. In the end, the critical few planning activities that were outlined in this Benchmark Study will essentially pay for themselves by way of improved project success rates.

The decision to improve organizational project success levels is of course not as simple as just committing to proper planning. Most companies have this intent in mind, but time pressure and budget constraints usually interfere. It takes the proper counsel and experience to focus on the most critical set of activities that will improve control and uncover inefficiencies that will ultimately and positively impact software development schedules and deliver on the promise of product quality; the two critical conditions for delivering projects within cost guidelines.

SQA, known as a leader in the QA Services Industry, invites you to continue in the next phase of this study. This series will continue to explore organizations and processes at a deeper level in search of low cost, high yield quality improvement opportunities within the Software Development Life Cycle.

If you would like to discuss your current challenges and future opportunities, please don't hesitate to contact at 888-299-7638 or via email benchmarkstudy@sqassociates.com

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