

Benefits of Outsourced Testing

Version: 1.0

Created Date: 02.Feb.2005

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References

Outsourcing: Tony, Troppito, John DeMassi, Ann Danby, Paul German, Software Quality Associates, August 2004.

Introduction

According to an article in Business Line (Dated: January 31, 2005) annual expenditure by US businesses on software development is approximately \$250 billion. Projects that complete on schedule and within budget are a mere 16%. Project cancellations due to quality issues are a staggering \$81 billion. However, project managers and product managers are increasingly being asked to deliver high quality software in shrinking time frames and vastly reduced budgets. Is this a case of wishful thinking? Maybe not. Outsourced Testing is one solution that software engineering managers should consider as they balance the needs of quality, time, and money.

Benefits of Outsourced Testing

Cost savings is only one of the many benefits of outsourced testing. When combined with a global delivery model that includes onsite (US based) staff as well as offshore staff, the number of benefits quickly expand to include reduced time to market, improved product delivery processes, and flexible staffing models. In addition, even those companies that have outsourced their development will be well served by using an independent third party for testing and quality assurance to act as a check and balance, providing unbiased insights into improving product quality.

Benefit One: Reduced Costs

The cost of a comprehensive program of testing and quality assurance should be viewed in light of the savings that will be generated by decreased rework, increased customer satisfaction, lower warranty costs, and decreased product maintenance costs. Outsourced testing that employs additional resources to implement or augment a company's testing and quality program can be done at a lower cost. When an offshore component is added to a company's testing resource mix, the cost of quality can be reduced by as much as 40%.

Benefit Two: Reduced Time to Market

Outsourced testing can help reduce time to market when it is used as a means for providing resources and skills not readily available in the organization. When the outsourced testing organization has a Global Delivery Model utilizing resources both at the client's site and offshore, further benefits accrue. First, the model allows for two shifts to focus on the project. Each shift can produce deliverables that can be used by the next shift. Second, when properly managed, the onsite team of the outsourced organization can act as technical test liaison to the client's development organization. This team can ensure that software builds are working properly, can perform testing during client's working hours, and can evaluate and replicate defects raised by the offshore team. The offshore team can take feedback from the onsite team's efforts to conduct

its testing during the client's off-work hours. An almost round-the-clock effort can thus take place with close integration between the development and testing teams.

Benefit Three: Improved Processes and Methodologies

A well defined outsourcing engagement can bring improvements in quality and delivery processes. An outsourcing relationship is based on well understood and contractually defined Performance Metrics (PM) and Service Level Agreements (SLA). PMs and SLAs can only be articulated if there are well defined processes encompassing the testing lifecycle from test scenario identification to test execution and analysis of results. Since the success of the outsourced testing organization is critically dependent on meeting SLAs, these organizations invest heavily in developing and maturing processes. Client organizations can benefit from working with organizations that have certifications like ISO 9001, CMMi, etc.

An outsourced testing organization is focused on testing services. These organizations have formal testing methodologies rather than heuristic or experiential techniques to identify, generate, and execute test cases. These formal methodologies like Category Partitioning, Orthogonal Array Testing, and Orthogonal Defect Classification (to name a few) provide for enhanced coverage and defect identification improving the probability of delivering high quality software. Clients can benefit from working with outsourced testing companies that invest in technical leadership in testing and quality assurance practices.

Benefit Four: Flexible Staffing Models

The testing lifecycle is characterized by staffing peaks and troughs. Managing the ebb and flow of resources becomes the responsibility of the outsourced testing provider. The client need not spend the time, money, and resources in hiring and eliminating jobs. Outsourcing provides a much needed degree of flexibility to the client organization and allows them to focus on product design and development activities.

Benefit Five: Independence and Insight

Good software development practice calls for separating the development team from the testing team. The primary purpose behind this separation is to provide for checks and balances between these two key activities and organization. When testing is outsourced, a further degree of independence is achieved leading to greater visibility of project related issues, improved accuracy of the quality, and higher objectivity on project status. Unbiased and independent insights from the outsourced testing organization provide the client management team to make more informed business decisions on delivery schedules and product quality.

When clients choose to outsource the product or project development itself to outside vendors, an outsourced team becomes even more valuable as a check and balance mechanism. The outsourced test team serves as the third frame, the first two being the client's organization and the outsourced development

organization. The third frame provides a view into the project and the quality of the deliverables that is more powerful than those provided by the other two reference points.

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