Software Testing – Key Performance Indicators

1.0 Introduction

In a world that is getting increasingly flat, software testing is one of the key activities, which is outsourced. This can yield high business value when managed effectively, especially considering low cost of labor in India.

2.0 Critical Success Factors

Three most critical factors that decide success in such assignments are: product knowledge, communication and effective management. Let us briefly see how these factors contribute to success.

2.1 Product Knowledge

The word 'Product' here means the software to be tested.

Unlike in-house testers, testers of the third party may not have a prior understanding of the specific product, the development process, and the end user needs. This, more often than not, is an advantage that disadvantage when seen in the proper light.

Effective software testing requires objective assessment through a judicious mixture of "user-perspective" and "constructive-destruction" must be performed. Hiring outside help through outsourced testing facilitates both. The 'outside help' is unlikely to have any bias and could take a critical look.

With a process with inherent support risk management and effective communication, all such grey areas could be unearthed, well in time to ensure a smooth sail as project progresses.

2.2 Communication

As discussed earlier, the potential bias due to prior knowledge about the software, people and process is a bane while testing is performed in-house. But it also has its advantages as there would be a good communication with rest of the development team, in general.

This takes a beating in the case of outsourced testing and building an effective communication channel with nodal points on either side helps to address this problem

2.3 Effective management

In a human resource intensive, technical activity like outsourced software testing, adaptive process, transparent functioning, proper planning, close monitoring of progress and quality of work done, evolving effective risk mitigation strategy, short and frequent feedback cycles and immediate action on feedbacks are found to be critical to project success.

3.0 Key Performance Indicators

Sl. No.	Key Performance Indicators	Relevant		
		Activities	Artifacts	Critical Success Factors
1	Test Coverage (Percentage of requirements covered by testing)	Test Management	Test Plan, Test Cases & Test Results	Product Knowledge
2	Test Case/Script per Person Per unit time	Test Script creation	Test Case/scripts	Effective Management
3	Defect Quality Trend (By severity)	Test Execution	Test Results	Effective Management, Product Knowledge
4	Defect Quantity Trend	Test Execution	Test Results	Effective Management
5	Progress vs Plan	Test Management	Test Plan	Effective Management
6	Turn Around Time	Test Management, Review	Test Plan, Test Cases, Test Results, Review Records	Communication
7	Rework	Test Script Refactoring	Test script	Product Knowledge, Communication
8	Breakage	Test Script Refactoring	Test script	Product Knowledge
9	Change in documentation after review	Test Management, Review	Test Plan, Test case	Communication
10	Traceability	Test Management	Traceability	Communication