ROI CALCULATION

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In today's increasingly competitive business environment, CTOs and CIOs are realizing they can no longer afford to treat test automation as an initiative to implement "when time allows." It is rapidly becoming a strategic imperative compelled by the need to keep IT costs in line and delivering quality at speed.

As more and more organizations embrace test automation practices, they find that the savings generated by these programs usually pay for the necessary investment many times over. In order to compute the return on investment, you must first identify and calculate the savings realized by implementing an effective test automation. Savings are realized by:

1. Reducing the cost of product testing
2. Increase many fold the speed of product releases
3. Decrease incidents in production environments

Based on inputs given by you in the questionnaire, we have projected the net savings and cumulative saving that you can get. The methodology and assumptions made to project these numbers are discussed on the last page of this report.

The above graph shows how the net savings and cumulative savings move from quarters. You could see that over a period of time your cumulative savings and can clearly identify when you might break even with your investment and start getting positive overall contribution from the investment.
One of the other metrics that you can track while discussing the automation investment is the actual cost of building and executing a test case. Using automation you can execute a test case many times without correspondingly increasing the cost of execution. The same would not be true for manual tests. In the case of manual tests, you will be constrained by the time and cost of repeated execution.

As you see from the graph above, the cost of automation test grows rapidly initially but it also falls dramatically as you start executing the test multiple times. Eventually the cost of executing a automated test will fall below the cost of executing a manual test. The cost of manual test will more or less remain constant and hence will become a budget constraint when you can to improve your test cycles per release.
Methodology

Using the data you provided, based on our experience, we are projecting how your product test plan will develop. We project the increase in automated test cases, the corresponding decrease in manual test cases. We have also assumed a standard percentage of offshore resource usage when projecting the costs for execution. Post that we project the cost for building and executing the tests and project them over a period. Using which we have projected the movement of cumulative cost and the cost per test case.

Assumptions

That we you would mostly use open source tools for automation
We have assigned a small fee of USD 5000 per year for tool set up
We assumed no cost for resource training in the tools
We assumed some productivity improvements from quarter to quarter