**Project**: Client Connectivity and Conversation

**Client**: Radian.

Currently in my project, we are using two automation frameworks.

1) **Excel bases data driven SOAP UI framework developed by EPAM (At Alliance time):**

2) **Non-Delegated automation suite developed using Cucumber, Java-Selenium:**

**Excel bases data driven SOAP UI framework developed by EPAM (At Alliance time):**

1) This is an in house EPAM (Alliance) framework developed for some previous project and we customized this to our project need. So cost of developing this considered as '2' hour for setting up the framework.

2) Every day we execute nearly 580+ test cases using this framework

3) Each test case take 4 min to develop so 39.13 hours to develop suite

4) Using automation it will take 1.30 hours to execute (Worst case).

5) Execute this manually it takes 9.28 hours(Considered one test case will take 1 min, all test data ready for each test case and all test cases are PASS).

6) Project duration - Executing suites since three years and adding one more years so total project duration is 4 Years.

Cost of manual testing= 46.4 (9.28\*5 days) per week \* 4 years \* 52 weeks = 9651.2 man-hours

Framework set up + existing test case development = 2+40 =42 hours

Cost for new test case = approximately 1 test case for 1 week so 4 min \* 52 weeks (Next one year) = 3.5 hours

Automated test execution & result analysis = (2\*5) 10 man hours per week \* 4 years\* 52 Weeks =2080

Automated tests development cost=

9651.2-(44.5+2080) 9651.2- 2124.5

ROI = -------------------------------- = -------------------- = 354 %

2124.5 2124.5

**Non-Delegated automation suite developed using Cucumber, Java-Selenium:**

**Cost of Automation testing:**

Daily smoke: (6 cases \* 3 min) 18min \* 5 days \* 3 years \*52 weeks =(14040 min) 234 hours

Monthly regression: (12 cases \* 3 min) 36 min \* 12 months \* 3 years = (1296 min) 21.6 hours

Framework set up + scenario development = 100 hours

Total cost of automation Testing = 234+21.6+100 = 355.6

Cost of Manual Testing:

Daily smoke: (6 cases \* 7 min) 48 min \* 5days \* 3 years \* 52 weeks = (32760 min) 546 hours

Monthly Regression: (12 cases \* 7 min) 96 min \*12 months \* 3 years = (3024 min) 50.4 hours

Total cost of Manual testing = 546+50.4 = 596.4

596.4-355.6 240.8

ROI = ---------------------- = ---------------- = 67.7 %

355.6 355.6