

The background features a central graphic of a shopping cart icon, which is semi-transparent and overlaid on a network of glowing white lines and nodes. Surrounding this central graphic are several circular icons representing different business and technology concepts: a globe, a megaphone, a document, a mail envelope, a cloud, a person with a headset, a storefront, a play button on a screen, a 24-hour service icon, a truck, and a smartphone. The overall aesthetic is futuristic and digital, with a dark blue and grey color palette.

**GLOBAL E-COMMERCE SOFTWARE CORPORATION WORKS WITH ZUCI TO
ENHANCE QUALITY FROM AN OVERALL ENGINEERING STANDPOINT**

CASE STUDY

GAP ANALYSIS FOR PRODUCT QUALITY



Zuci's consultants were approached to evaluate the company's QA maturity and improve the quality of QA processes.

PROBLEM STATEMENT



The client owns a unique software platform that powers the world's first and last-mile deliveries, helping postal, retail, courier, and logistics organizations connect nearly 1 billion consumers with global eCommerce networks.

Following its efforts to provide improved user experience to multinational clients, the client sought to partner with a company with considerable technical expertise. Zuci stood out due to its wide-ranging experience with the enterprises and desire to drive the client's solution forward.

HOW ZUCI HELPED

Zuci believes in the “Quality is everyone's responsibility” culture.

As part of the QA consultation, Zuci’s consultants performed series of interviews, review meetings, white board and brainstorming sessions with geographically dispersed teams and product owners, and thoroughly analyzed all QA and engineering artifacts: QA maturity, architecture, code, infrastructure, and other relevant areas.

Going through the process, the consultants formulated a GOAL approach spanning over 8 weeks that aimed to review client’s.

1. Engineering practices
2. Core product
3. Customer releases
4. Test engineering & QA

GOAL APPROACH

- ◆ **Gauge (G):** Gauge the above 1,2,3 and 4 and document the observations gained from interviews, discussions and focus groups.
- ◆ **Organize (O):** Organize information extracted from the activities and have hands on participation in text execution.
- ◆ **Align (A):** Align phase wise observations, root cause analysis, scorecard compilation and input for “Gap analysis” presentation.
- ◆ **Lead (L):** Lead with SWOT/Fishbone analysis report, present scorecard, observations and share roadmap for test process improvements with the client.

OUTCOMES

To begin with, Zuci's consultants identified the challenges faced by clients such as:

- ◆ Defects leakage in production.
- ◆ Insufficient test coverage.
- ◆ With continuous releases and patches, QA effectiveness is not realized.
- ◆ Below optimal test automation coverage.
- ◆ Huge 3rd party dependencies.
- ◆ Test data challenges including barcodes/labels, test data integration with backend systems etc.

Based on the findings, the clients received a consulting report detailing the findings and recommendations.

OUTCOMES

Test Engineering



As a well-designed end-to-end test strategy was missing, Zuci's QA experts included a customer-approved E2E suite, capturing business use cases and reducing customer-reported defects.



As little smoke & functional regression testing was happening, the experts advised creating an automated smoke & functional regression test suite that should be triggered automatically via CI/CD pipeline.



Create test execution plans for ticket/sprint/release level based on impacted areas for each story in the scope, and update results.

OUTCOMES

Test Management



Due to the absence of formal test sign-off, the consultants recommended using test management tools like JIRA and XRAY to ensure traceability at each stage (Test Design and Test Execution).



Maintain and map high level functional checklist/scenarios for each ticket.



Along with mapping the functional areas, maintain test suite for smoke, regression and E2E.



Import all the existing excel based test cases into the test management tool.



Move from person dependent to process dependent structure.

OUTCOMES

Test Governance & Compliance



Because of the absence of defect analysis feedback implementation, the experts proposed to collect various parameters of defects for analysis, such as:

- ◆ Issue source
- ◆ Environment
- ◆ Component / Functional Area
- ◆ Root Cause
- ◆ Issue Category
- ◆ Source Version
- ◆ Identified Version
- ◆ Fixed Version



Capture defect insights from these parameters at the sprint/release level and identify, track and implement action points.



Defined KPIs based on metrics and shared with the client during monthly meetings to offer visibility into problematic areas.

OUTCOMES

Training & Development



As there was no single QA knowledge, the consultants advised creating a knowledge base through training programs.



Upskill employees to learn new technologies that align with the technology roadmap, improving productivity and employee engagement.

Agile Process



Increase collaborative efforts to have in place an effective agile engineering process.



Teams to envision product roadmap more from an end-user perspective.



Identify and automate reusable functional & regression tests that multiple teams can use.



Based on the understanding of the new features & enhancements, prepare mind maps and present them to the customer for requirement sign-off.

OUTCOMES

Engineering process



Because of the chaotic toolset usage, the consultants suggested bringing an unified approach to tools selection and usage.



Encourage fail-fast and faster feedback loops.

Change management



The consultants advised having in place a formal approach to change management processes.



Setup change advisory board that constitutes business and technology team members to review, prioritize and approve change requests.



Define change prioritization guidelines and change approvals.

OUTCOMES

Continuous improvement



To determine corrective actions and implement them, build 'Lessons Learnt' register.



Keep growing the register with inputs from Core R&D and Services team.



Share knowledge across engineering, test, DevOps and product management teams.



The register becomes a base for continuous service improvement initiatives.

OUTCOMES

Risk management



As there was no formal risk register, the experts advised building a formal register and integrating it with Atlassian tools.



Categorize business versus technology risks.



Prioritize the risks for mitigation.

Zuci's consultants prepared report with a breakdown of Zuci's view, SWOT analysis, a framework for proposals, and a roadmap for their implementation.

Our analysis of the current state of things helped the client uncover important details about the QA processes.

TECH STACK





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TO KNOW HOW THEY CAN GET IT SOLVED FOR YOU.**

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