

HOBSON & COMPANY

DRIVING ROI

The Business Case for Getting
Closer to Your Customer
Through a Crowdsourced
Testing Solution



Executive Summary

Software failures impacted an estimated \$1.7 trillion in assets in 2017, and more than 70% of these failures were the direct result of software bugs or usability glitches. These failures are unacceptable in a digital-first world—but given the rapid pace of innovation, exponential device fragmentation, and increased global app usage, software quality issues are increasingly difficult to avoid.

These three factors juxtaposed with the ever-demanding corporate initiative of “do more with less” can be a daunting challenge for most organizations. How do they comprehensively test their digital platforms across thousands of device/OS/location profiles to ensure the highest quality digital experience or product is released to their customers? And how do they do so with the same or fewer resources than they had before?

These challenges often force costly tradeoffs between testing coverage strategies and time-to-market pressures. Ineffective testing can result in dissatisfied customers, inefficient processes, and weakened market competitiveness, which ultimately impacts a brand’s bottom line.

Hobson & Company, a research firm focused on Return on Investment (ROI) studies, worked with Applause to explore how crowdsourced testing addresses these software development challenges. Research consisting of in-depth interviews with 18 customers found a compelling return on investment from Applause’s crowdsourced testing solutions.

According to Applause’s resulting predictive model based on real-world client examples, clients can receive a full return on their investment within **1.7 months** and a **753% return** on their investment after 3 years.





Key Benefits

Applause's true value is examined further in this white paper, providing insight into how key benefits like those below can be achieved.

**150 -
200%**

INCREASE IN
CAPACITY OF
INTERNAL TESTING
TEAMS

**100 -
150%**

INCREASE IN
NUMBER OF
RELEASES
EACH YEAR

**50 -
75%**

REDUCTION IN
TESTING LAB
COSTS

**30 -
50%**

REDUCTION IN
CRITICAL FIXES
NEEDED

**30 -
50%**

REDUCTION IN
UNPLANNED DOWNTIME
FROM ELIMINATING
BUGS

**25 -
30%**

ACCELERATION
IN PLANNED
REVENUE

10%

INCREASE IN
CUSTOMER
RETENTION
RATE*

10%

INCREASE IN
CUSTOMER
CONVERSION
RATE†

* 5% of benefit attributable to Applause

† 10% of benefit attributable to Applause

Software Quality Challenges

Customers interviewed struggled to consistently keep QA in lockstep with development roadmaps and requirements. QA often faced increasing customer expectations, time constraints, quality concerns, and device fragmentation while testing budgets shrunk or remained flat.



Rising Customer Expectations

Customers increasingly expect the mobile apps and software they engage with to be of high quality and to provide an engaging experience. This is easily seen in the increased importance of app score ratings and product reviews in the consumer world. Understanding how customers see and interact with applications or software 'in the wild' is incredibly valuable in order to ensure expectations are met and customers are happy. Testing labs, automated testing, and in-house testing often fall short of providing comprehensive feedback that can help corporations meet their customers' expectations.



Increasing Competition

In an increasingly competitive environment, many organizations feel pressure to find new, innovative ways to engage with customers and to do it faster than their competitors. This is especially true in the consumer-focused industries where the race never ends. The advantage of launching an application before your competitors is typically only temporary. What's next?



Balance of Speed, Quality, & Cost

That faster release cycle almost never comes with additional resources for testing, but it invariably comes with an increased chance of critical bugs escaping into production. This unplanned work is both expensive, time-consuming, and redirects developers away from their upcoming roadmap focus. Instead of developing new features and functionality that can drive revenue, developers instead spend time fixing code. Balancing speed, quality, and cost is an ongoing challenge of every software development team.



Lack of Adequate Testing Coverage

There are more than [45,000 device/OS/network/location mobile device profiles](#) in the world today. Depending on a company's go-to-market plan, a significant portion of those profiles need to be tested in order to ensure a successful launch for all target customers. In addition, as companies expand their market penetration – be it through geography, demography, or platform, the complexity of testing variances increases significantly. Many organizations indicate that testing typically only covers 20-30% of their customer base. Unfortunately, this testing approach leaves organizations vulnerable to severe quality issues for segments of their customer base, resulting in potential revenue loss.



Applause Research Results

Customer research identified 8 benefits across 3 key value areas:

- **Reduce Testing Effort & Cost**
Build and scale your test coverage without the burden of additional overhead costs
- **Innovate Faster with Lower Risk**
In the age of agile, speed is key. Crowdtesting gives QA the ability to keep up with fast development sprints
- **Improve User Experience**
Crowdtesting is not just a bug testing tool. Provide a critical perspective on usability from testers resembling your core audience

Increase Capacity of Internal Team

Software testing is time-consuming and resource-intensive. Applause Manual Functional Testing augments internal teams to significantly expand their capacity. This allows existing teams to be more productive and focus on more valuable activities, as well as alleviate the management overhead associated with maintaining an expanded team.

"Applause has increased the capacity of my internal team by 200-300%."

- Director of Global E-commerce

Customers interviewed reported the potential for

150-200%

**INCREASE IN
CAPACITY OF
INTERNAL TESTING
TEAMS**

Customers interviewed reported the potential for

30-50%

**REDUCTION IN
CRITICAL FIXES
NEEDED**

Reduce Costly Bugs by Discovering Them Earlier in the SDLC

Bugs are more expensive to resolve later in the SDLC. Applause Manual Functional Testing finds bugs earlier in the SDLC through more effective exploratory testing. As fewer bugs escape into the post-production environment, developers spend less time on critical bug fixes. Detecting more bugs during the normal testing cycle also minimizes the need for patch releases.

"The Applause team found 40% more defects than the internal team."

- Sr. Director, Global Quality

Avoid Hard Costs of Test Lab

Device matrices are growing more complex every day. Ensuring adequate testing coverage across all device/OS/location combinations is becoming prohibitively expensive. Applause helps eliminate internal testing lab costs by using testers around the world with access to any and all devices.

"Applause helped us save the cost of maintaining 100 additional devices for testing."

- Sr. Manager, IT

Customers interviewed reported the potential for

50-75%

**REDUCTION IN
TESTING LAB
COSTS**

Customers
interviewed reported
the potential for

100-150%

**INCREASE IN
NUMBER OF
RELEASES
EACH YEAR**

Release Higher Quality Products in Pace with Demand

Revenue-generating features need to get to market quickly in order to meet consumer expectations and stay competitive. Applause can deliver actionable results in hours while improving on-time release rates with faster crowdsourced testing data. The comprehensive testing approach also allows product teams to confidently increase the number of features included in each release.

"With Applause, we have been able to double the number of releases we do each year."

- Sr. Manager, Quality Engineering

Improve Success Rates with Global Launches

Every geographic market is uniquely complex with local networks and devices, payment systems and purchasing habits, cultural differences and more. Brands may not fully understand a market or issue if they don't have eyes on the ground. Applause scales an 'in-market' team to test functionality, usability, and more to ensure a successful launch.

"Our ability to roll-out from 10% of our customers to 100% of our customers has improved significantly."

- IT Director

Customers
interviewed reported
the potential for

25-30%

**ACCELERATION
IN PLANNED
REVENUE**

Customers
interviewed reported
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30-50%

**REDUCTION IN
UNPLANNED DOWNTIME
FROM ELIMINATING
BUGS**

Increase App Availability

Minimizing downtime of a digital property due to a bug or defect is critical to limiting lost revenue and customer dissatisfaction. Applause increases app availability by reducing unplanned downtime through rapid deployment of a specific test group with the known hardware/network configurations. This accurately replicates the issue and provides details of the problem to the customer's development team.

"We have reduced the number of monthly app crashes by 90%."

- Sr. Director, Global Quality

Protect Loyalty & Retention

The minute a digital experience falls short of a customer's expectations, they may move on to a competitor. Applause improves application quality by leveraging a global community of testers to test under real-world conditions. Exploratory testing methods are used to discover defects and issues that come from unexpected usage patterns. In addition, local testers provide a unique insight into local usability preferences, functional requirements and more to avoid a negative impact on brand image.

"The work with Applause has helped us prevent finicky mobile app users from deleting our app from their phone."

- Sr. Dir of Global Verification

Customers interviewed reported the potential for

10%

**INCREASE IN
CUSTOMER
RETENTION
RATE***

Customers interviewed reported the potential for

10%

**INCREASE IN
CUSTOMER
CONVERSION
RATE†**

Improve Customer Conversion Rates

Less stable digital properties result in lower customer conversion rates. Ensure your target market gets exactly what it wants, not what you think they need. Applause creates an 'in-the-wild' test environment that more accurately simulates real-life use cases and helps improve the customer experience.

"Latency is the biggest reason that we see folks abandon a transaction, and we are currently utilizing Applause to look into this."

- Payments Operations Manager

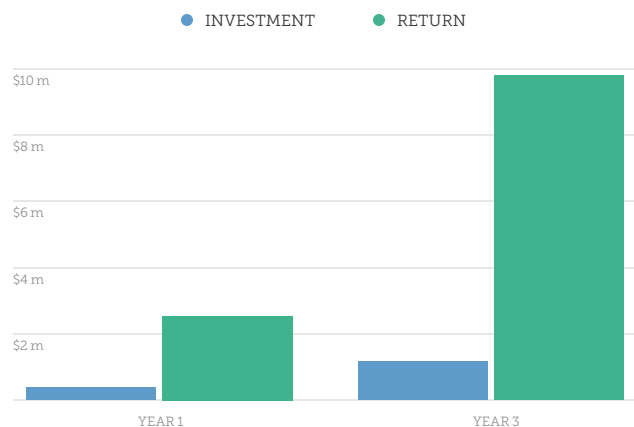


Key ROI Findings

The value of a crowdsourced functional testing solution is immediate and demonstrable. Customers (both small and large) can realize significant benefits from an investment in Applause, regardless of the size of investment.

Hobson's model calculates a sample company's ROI based on three contributing value drivers— Reduce Testing Effort & Costs, Innovate Faster with Lower Risk, and Improve User Experience—considering the company's revenue, team size, release velocity, and more.

In this model with a three-year investment totaling \$1.1m, the company generates a positive return in 1.7 months. The 3-year net present value (NPV) and ROI are strong at \$6.8m and 753%, respectively. The key financial metrics for the sample organization were calculated by standard methods and are shown below. The NPV calculation assumes a 10% cost of capital.



FINANCIAL METRIC	VALUE
Payback	1.7 Months
3-Year NPV	\$6.8 Million
3-Year ROI	753%



About Hobson & Company

Hobson & Company helps technology vendors and purchasers uncover, quantify and validate the key sources of value driving the adoption of new and emerging technologies. Our focus on robust validation has helped many technology purchasers more objectively evaluate the underlying business case of a new technology, while better understanding which vendors best deliver against the key value drivers. Our well researched, yet easy to use ROI and TCO tools have also helped many technology companies better position and justify their unique value proposition. For more information, please visit www.hobsonco.com.

About Applause

Applause empowers the world's leading digital brands – including Google, Uber, Michael Kors, and FOX – to deliver flawless digital experiences to their customers on any device, in every location. Applause ensures software quality for websites, mobile apps, IoT products and in-store interactions in a way no other approach can – through its technology platform and managed global community of over 300,000 professional, on-demand, digital experience experts. Applause delivers authentic, real-world human input at every phase of software development, delivering insight into market requirements, user feedback and software quality. Companies that use Applause benefit from flawless digital experiences that build customer loyalty, drive revenue and accelerate innovation. Learn more at www.applause.com.