White Paper
Atlas
Silk Portfolio

Customer Expectations: The Start, Middle and End of Software Development
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Introduction: The Rise in Customer Expectations

We are all part of a new breed: the tech-savvy, always-on consumer is everywhere, and we expect more and more from our devices and apps.

We have grown entirely used to software that’s easy to use and works the way it’s supposed to—every time. Anything less is not just a disappointment, it’s a direct link (and a poor one) to the overall customer perception of a brand. A customer’s emotional connection with a brand is a key indicator of its value. Forrester has identified four key dimensions that each significantly affect brand preference, referral, pricing power, and ultimately brand resonance. These four dimensions are trusted, remarkable, unmistakable, and essential, and each is improved with software.

Fig. 1
Software enriches the key dimensions of a 21st-Century brand. (Source: Software Must Enrich Your Brand, Forrester Research, Inc. 2014)
In this fast-moving digitally-driven world, app performance and functional features are critical components of customer satisfaction, as is the ability to use any device, anywhere, with zero compromise in the user experience. The expectation is for a consistent experience across all channels no matter what challenges that might entail.

Software technology companies must meet these needs or risk being trampled by the competition. Higher customer expectations mean that business teams and the CIO are more central than ever to understanding what the business needs, while QA and testing teams must have a greater focus and understanding of how their efforts effect brand reputation. As one complete collaborative team, everyone must be able to put changing customer expectations at the heart of the business.

76% of executives say that protecting corporate image is important or very important.

This is not without its challenges since expectations still need to be matched with reality. For software development companies, this means managing the constraints of schedule, budget, staff resources, quality goals and continuous change. It is no longer just a question of software delivery; it is how well delivery matches customer expectations.

Fig. 2

Defining the Customer Expectation Journey

The concept of mapping user journeys is commonplace when developing websites and online destinations. We focus on creating ‘ideal’ user journeys that are free from frustration and which satisfy every user need. Yet it’s less common to think about customer expectation as a journey in its own right.

However, from a development perspective, meeting customer expectations is a real journey. It starts well before the user even touches the application, with the need to deliver on business needs. The journey continues with obstacles along the way, including the ‘mobile multiplier’ (the effect and complexity of different browser and device configurations), competitive pressures, budgetary constraints and continual business change. And the journey comes to a close (at least for that single software version) when the software closely matches customer expectations and has been performance tested in real time to prove that’s the case.

Joining up the customer journey in development terms requires connecting all the dots (and business and development team members) to create a start, middle and end for software delivery that always has the customer in mind.

Start: Customer Expectations and Requirements

“The camel is a horse designed by committee.”—Sir Alec Issigonis

Poor or loosely defined requirements are a surefire way to start any project on a downhill customer expectation curve.

What might seem a straightforward task for the business—discovering all of the customer’s expectations and then defining them as requirements—is not so simple in practice. There will almost certainly be ‘expressed’ expectations (easy to grasp) as well as ‘implied expectations’ (which may not have been formally given by the customer). This means the business must anticipate the goals of the client and create appropriate requirements as early as possible in development.
To add to the complexity, and regardless of the type of software development lifecycle model used such as waterfall or Agile, the requirements must be accurately captured and shared across a number of different business stakeholders who may well be using different tools, varying from email to documents, photos or even simple scribbled ideas.

Bringing business stakeholders together with familiar tools is crucial so that a shared vision of what is to be created is established at the beginning of the project and a single viewpoint can then be maintained. All key stakeholders will know the product scope before requirements are written and design begins, which leads to reduced rework and avoids costly schedule delays.

Middle: Customer Expectations and Development

With accurate requirements in place that mirror customer expectations, you might expect development would be an easy streamlined process from that point onwards. That’s not always the case. Visually seeing the progress and status of customer requirements after those requirements have been broken down into stories by your development teams is a challenge.

It’s as if the business and development teams suddenly become divorced: they talk different languages and have differing perceptions, rather than sharing a common objective and understanding of the business goal. This makes meeting customer expectations and managing change a huge challenge: uncontrolled changes can quickly snowball into serious complications. And to manage customer expectations in a controlled way, the business must be able to adapt to change. These changes in plan are, after all, the norm—as new competitive features are discovered, business objectives are changed, priorities alter, etc.

In this crucial middle phases of development what’s needed is a point of reference for software requirements that is both easy to understand and trackable. Development should be linked in the context of business requirements, and business and development activities should be transparent. This transparency ensures the business can track user requirements while they are under development, even when requirements evolve over the life of the project.
In addition, the ability to get the right test coverage of end user requirements and expectations is cited by 41% of respondents* in recent research as being the second most pressing challenge (ahead of identifying the right area in which testing should focus). It is encouraging that there is increased attention on getting end user requirements right, and then testing that those expectations have actually been delivered upon.

End: Customer Expectations, Testing and the User Experience

Maintaining quality and meeting customer expectations in the face of a proliferation of devices, platforms and differing network conditions into which applications must be delivered, is no easy challenge. Yet every web, mobile, rich-client and enterprise application must have consistent functionality and performance, no matter where the end user is located or what device they’re using.

If a bottleneck is to be avoided in the testing function, it must be possible to quickly detect, isolate and resolve the root cause of performance problems early in the release cycle. Real world testing of peak-loads and performance across multiple geographies—as well as load and functional testing across all devices and platforms—is essential. Equally, introducing efficiency and accuracy to quality practices is possible by centralizing testing, so that test team activities can be managed in ways that accurately reflect customer usage patterns.

Creating a better customer experience for every customer and in any environment requires a combination of meeting what the user wants, needs and expects—and ensuring it works and performs too. The user experience and customer expectations should never be separated: one must help to fulfill the other. Emphasizing the user experience when testing an app reduces maintenance costs, increases adoption and user satisfaction, and grows revenue. To make sure everyone is on board with these goals, a feedback loop from real-time application monitoring will give both business and test teams the insights they need to make continuous improvements and prioritize testing to meet short release cycles.

* Source: World Quality Report 2015
What Speed Should the Journey Take?

It’s common to think about speed and quality of software delivery as being two individually attainable qualities, and that trying to achieve both will inevitably lead to compromise. But to meet ever-growing customer expectations, a fast pace of iteration is required as well as a high quality user experience, meaning there can be no compromise between speed and quality.

The key challenges for QA and testing are how to broaden test coverage given shorter release cycles and how to use more predictive forms of testing such as real-time quality monitoring. Speeding the test process through software test automation and better managing the testing through centralized management is the key to helping reduce project time and cost. The right tools shorten the period of time between the introduction of a defect and the identification of that defect. And centralized test management gives complete visibility of the process, so you can confidently test faster, test more, and improve quality. Even non-technical QA and business stakeholders can be empowered to contribute to testing and even create their own acceptance tests, if the tools they use are easy and familiar.

Revenue trajectory for companies with & without UX strategy. (Source: The Return on Investment of a Great User Experience, Whitepaper, UXprobe bvba 2015)
Conclusion

Many problems in software development arise from unstated or unrealistic expectations, but many more are due to an inability to accurately capture customer expectations and turn them into easy to understand requirements. Even when those requirements are accurately captured, it’s not enough just to have good intentions at the start of the project lifecycle.

Requirements must be the thread that runs through every stage of development, and quality must be ensured by employing test processes and test management control that is in tune with the continuing explosion of devices, platforms and differing network configurations that have such a telling effect on the user experience. Emphasis on performance, no matter how or where the user chooses to run an application, must be consistent and failsafe.

In terms of the tools that help deliver on customer expectations, these should bring business and development teams together to continually and collaboratively focus on customer and user expectations. Micro Focus puts performance, quality and the end user experience at the heart of the testing process. We have tools that help you capture, share and track the progress of ideas, concepts and requirements (Micro Focus® Atlas™); ensure peak performance across all mission critical application types (Micro Focus Silk Performer™); significantly reduce testing time through efficiencies such as test automation and script re-use (Micro Focus Silk Test™); centralize testing to manage and schedule test types including manual, unit, automated functional, mobile and performance (Micro Focus Silk Central™) and numerous other ways to ensure successful software delivery.

Turning customer expectations into reality means meeting cost, time and quality goals, and that only happens when the development story has the perfect start, middle and end. The right tools will help you make that happen.

For more on meeting customer expectations throughout the software development lifecycle, visit: borland.com/expectations