The Definitive Guide to Ecommerce Performance

How to measure and boost online performance to improve your bottom line.

Mobify

There is no shortage of articles around the importance of a site's performance to a business' bottom line. Yet, there is a fractured view of what performance means across an organization and across the industry at large.

For some, performance refers to technical metrics like full page load or first paint. For others, performance refers to higher-order metrics like conversion rate, average order value, and revenue. While both are a part of performance, you leave the actual customer out of the equation when you only account for technical or business metrics. But as Google's latest consumer study shows, your customers' perceptions are the most important indicator of your success.

The Metrics that Make Up Performance

Performance means different things to different people, so the first step is making sure we're all speaking the same language.

HOW RETAILERS THINK ABOUT PERFORMANCE:

> "
>
> 46% of people say they would not purchase from a brand again if they had an interruptive mobile experience.
>
> **Think With Google,**
> *How to make every mobile moment a brand-builder*

Is the site making money?

Revenue
Average Order Value

Are shoppers purchasing?

Conversion Rate
Transactions

Are customers engaged?

Retention Rate
Sign-ups

Is the site easy to use?

Usability benchmarks

checkout steps

Does it load quickly?

Page load speed

Time to Interactive

To understand the performance of your website, and identify what needs to be improved, you need a holistic view of all the metrics and factors that make up performance. It's the user experience and technical performance metrics that ultimately impact the business metrics.

Business metrics

User experience metrics

Technical performance metrics

DEFINITION
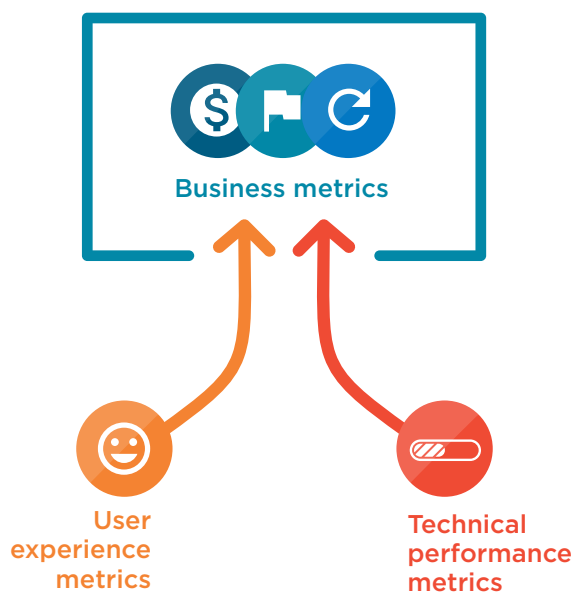
Time to task completion
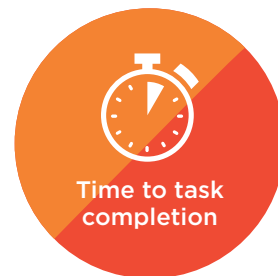
The amount of time it takes to complete a designated task.

The most valuable way to think about performance is to consider who it has the biggest impact on – in other words, your shopper. **Time to task completion (TTC)** is a new metric that drives top level business objectives, and measures both the user experience and the technical performance.

The Shopper is the North Star of Performance

To measure the performance of your website from the shopper's point of view, you need to look at both the user experience and technical metrics. While technical metrics are easy to measure – and are great for a pulse check on the health of your site – they are only part of the picture. If your user experience is lacking, there's a bug in your checkout, or your customer has to navigate 15 pages to find what they're looking for, even the fastest mobile site still won't convert. That's where time to task completion comes in.

Introducing time to task completion (TTC)

Time to task completion (TTC) is the sum of two parts: technical performance (the time spent waiting for the site to load), and user experience (the time the user spends performing actions).

Time to task completion = Technical performance + User experience

A typical task is made up of several steps where the site needs to load, and stops where the user is required to take action. To measure TTC, you need to pick a task that has an economic impact to the bottom line of business. For ecommerce, it's usually a checkout task (in which they're asked to complete a purchase) or a findability task (in which they're asked to find a particular product) .

HERE'S AN EXAMPLE OF A FINDABILITY TASK:
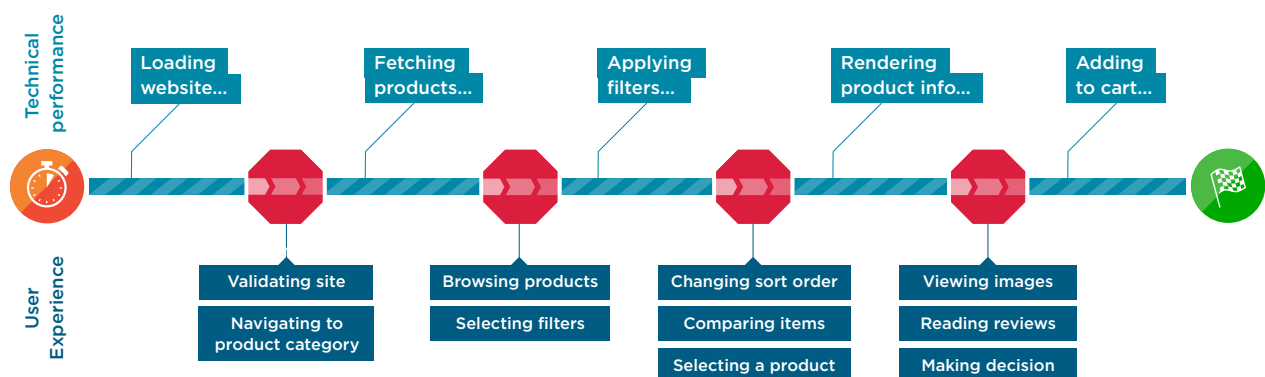
How to Measure Time to Task Completion

A great way to start measuring TTC is using qualitative methods that will also allow you to observe and record other user experience metrics at the same time.

1. Pick a task

Pick a core task that is important to your business. For this example we're going to use the checkout funnel for an ecommerce mobile website, but you could use findability, account sign ups, promo sign ups, or creating an account.

As we will be testing with real people, it helps if they don't know what they are being tested to do. This helps remove the bias of participants wanting to please you by showing how clever they are.

TASK EXAMPLE:

"Find a pair of sandals for under $40 in brown, size 8 and then checkout as a guest with some placeholder details."

In this example the participant thinks that the main task is finding the sandals, but we're going to start the timer at the checkout.

2. Recruitment and sample size

This is the hardest part. The aim here is to remove bias and try and use people who match as close as possible to your normal customer persona. So if your site sells sports equipment to elite level athletes, then you want to find elite level athletes to test with. Similarly if your site sells low cost fashion for millenials, then you ideally want to test with that persona.

The best place to find these people is talk to marketing or your customer support teams. They may have a database of customers that you can approach. You can also pay for user testing through usertesting.com or clarity.fm.

As this is qualitative testing, a general rule of thumb is to have somewhere around 5-10 people. Usually it takes at least 3 people to start seeing a trend, and after 10 people the new information you are getting drops off considerably.

3. Equipment

Video recording: Use quicktime player and a mobile device.

Test Script: Write out what you want to say so that you say the exact same thing to all participants.

Stopwatch: Time how long it takes.

Pen and Paper: You want to keep track of any errors or issues that someone makes.

Co-pilot: It helps to have one person looking after the time and errors, and another person being the facilitator

4. Running the test

24 hours before the test	1 hour before the test	During the test
• Do a dry run with a colleague • Check the prototype • Run through optimal path • If you're testing a site with login credentials, create a dummy username and password	• Check recording and audio • Print your test script • Have login credentials ready to copy and paste for your participant	• Start timing when users selects the Add to Cart button • Stop timer when user selects final call to action • Note how many mistakes the participants makes • Note any issues the users has with particular elements or steps

At a high-level, you're ready to get started. For more of the nitty-gritty on how to run a usability test, you can read this.
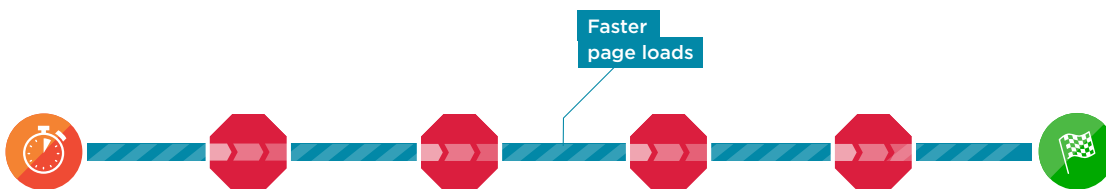
How to Improve Time to Task Completion

There are two ways to improve TTC – speeding up page loads and improving the user experience.

Let's consider a typical path to complete a task:

The first option is to **speed up the load times between pages,** which is what the traditional technical performance metrics monitor:

Faster
page loads

But TTC really improves when faster page speeds are combined with **a better user experience** that removes unnecessary actions and page refreshes:

Improved usability
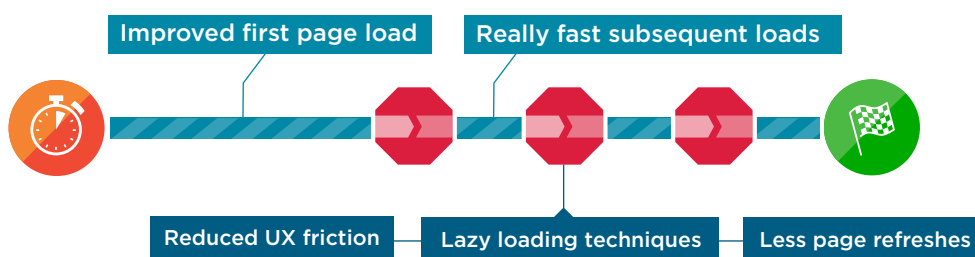
Dynamic in-page
interactions
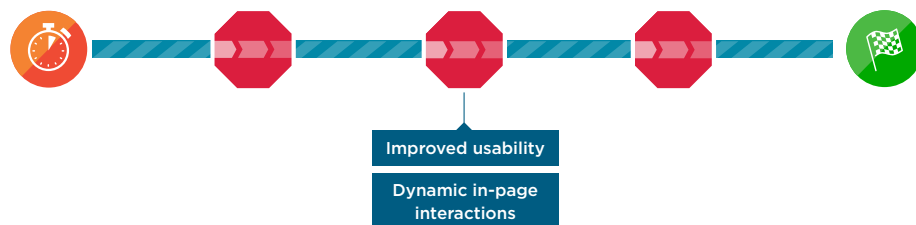
Technology to improve TTC and top-level business metrics

Progressive Web Apps (PWA) and Accelerated Mobile Pages (AMP) are Google-driven technologies that are becoming the new standard for best-in-class mobile experiences because they enable both faster page loads and superior user experiences.
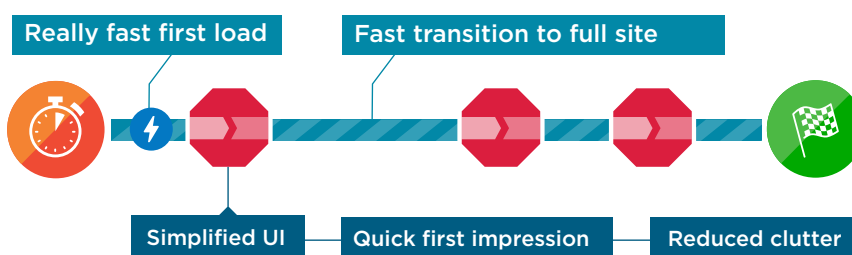
As a result, both improve TTC, and in turn, top-level business metrics.

Progressive Web Apps usually see page load improvements in the initial site load, but significant gains are really captured in the subsequent page loads thanks to the caching architecture. These page speed improvements combined with progressive loading techniques to defer off screen content, as well as dynamic in-page loading events that eliminate the need for full page refreshes, result in a much faster TTC.

Improved first page load

Really fast subsequent loads

Reduced UX friction

Lazy loading techniques

Less page refreshes

AMP takes this a step further by also making the first page load almost instantaneous. AMP pages are lightweight versions of common landing pages that are stored on the search engine's servers and delivered almost instantly when a shopper clicks through from search results. The AMP page then transitions to the full PWA in the background to ensure a fast and engaging experience throughout the website.

Really fast first load

Fast transition to full site

Simplified UI

Quick first impression

Reduced clutter

Time to Task Completion Benchmarks

We conducted usability tests to compare the baseline TTC of the responsive or m.dot version of a website to the TTC of the Progressive Web App (PWA) version. We found that the PWA was 35% faster on the checkout task, and 49% faster on the findability task.

Checkout Task

M.dot / Responsive

PWA

Time to task completion
~35% faster

Findability Task

M.dot / Responsive

PWA

Time to task completion
~49% faster
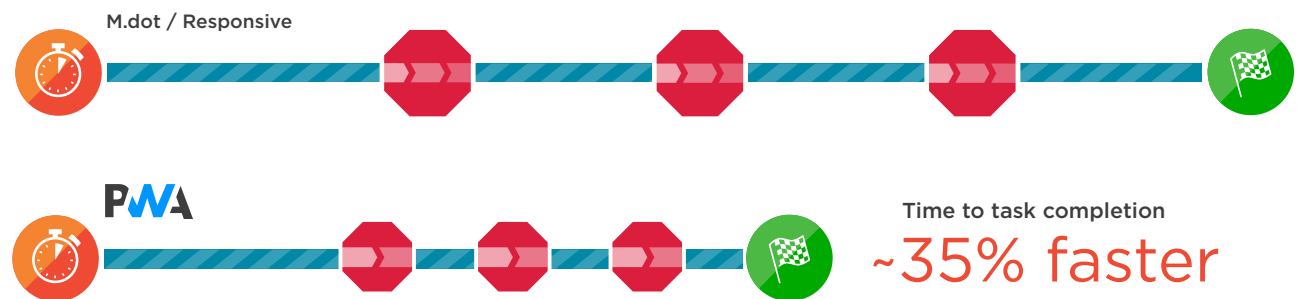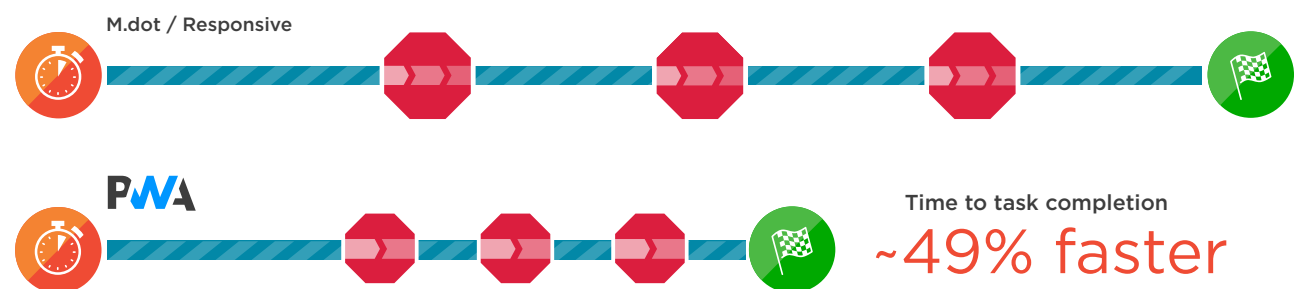
TTC can vary based on the complexity of your site and the task itself. It's best to work against your own baselines (and also try to beat your previous TTC measure), but here's an example of the range we've found with one of our customers, multi-billion dollar UK department store Debenhams.

DEBENHAMS

	Baseline	PWA	Total Reduced Time	% Difference
Checkout	5 min 28 sec	3 min 26 sec	2 min 2 sec	37%
Findability	1 min 52 sec	1 min 1 sec	51 sec	46%

Takeaway: It's All About the Shopper

Performance is a complex topic, but it's one of the most important indicators of success in ecommerce – and it really all comes down to your shopper's perception. The technical metrics are great to monitor, but don't forget about the other piece of the puzzle – the user experience. Time to task completion gives you a view of both, so that you can identify and improve problem areas to better drive top-level business results.

Partner with Mobify

Mobify is the #1 provider of Progressive Web Apps for ecommerce for retailers and brands that want to close the gap between desktop and mobile conversion rates, keep up with customer expectations, and win loyal customer relationships. The Mobify Platform delivers a unified customer experience across mobile web and apps, while building customer relationships through push notifications and performance enhancements. Leading global brands including Lancôme (Mobile Commerce winner 2017 Internet Retailer Excellence Awards), Crabtree & Evelyn, Paula's Choice, Carnival Cruise Line, London Drugs, Burlington, PureFormulas, Superdry, Columbia, eXtra Electronics, and ThinkGeek generate extensive revenue through the Mobify Platform and rely on Mobify to grow their customer lifetime value.

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