2017 eCOMMERCE LEADERS SURVEY

Site Performance & Innovation Trends

“eCommerce website performance is disturbingly slow.”

This was a key takeaway from a research paper published earlier this year from Retail Systems Research (RSR) titled “eCommerce Performance: What Works, What Doesn’t, and What’s Next.” In the paper RSR evaluated 80 top online retail sites in terms of site performance and shopper experience. RSR visited each eCommerce site and recorded performance metrics, number of third party applications, and key shopper experience factors such as ease of site navigation. The research was well received in the retail industry, but left some questions still unanswered.

97% believe faster sites lead to increased conversion

This report is a complement to the RSR study with one major difference: all data gathered for the report came directly from online retail leaders. The objective was to gather data to determine:

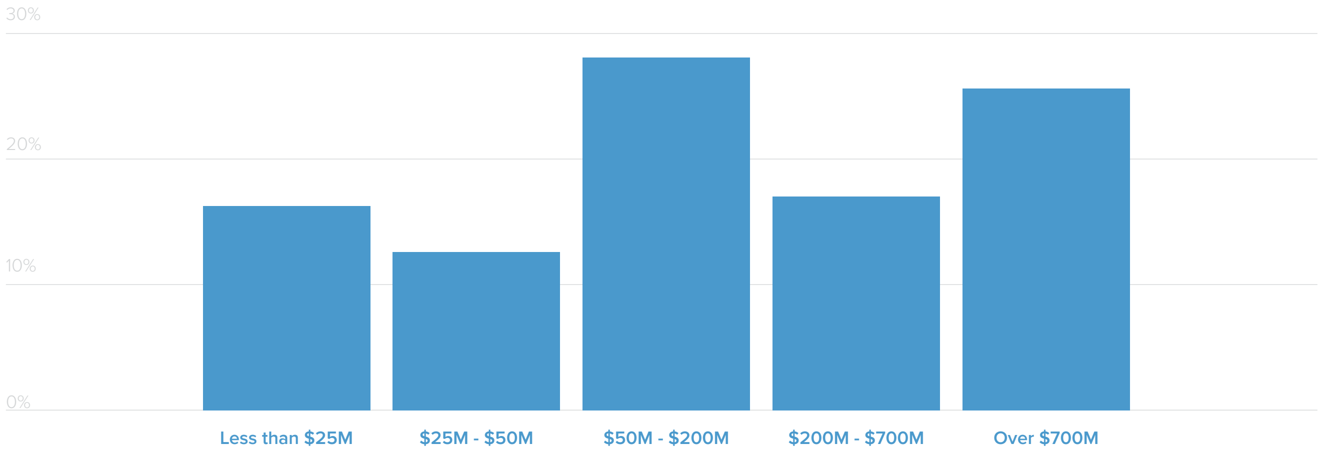
- ✓ What are the limits of shopper attention?
- ✓ How often do shoppers leave their sites due to slow page load times?
- ✓ How do they perceive the performance of their sites today?
- ✓ How much does web performance impact conversion rates?
- ✓ Which steps are they taking to tune page speed performance?
- ✓ What are their main eCommerce initiatives for 2018?
- ✓ How much are they investing annually to drive shoppers to their sites?
- ✓ Where are they investing to improve website performance and the shopper experience?

Methodology

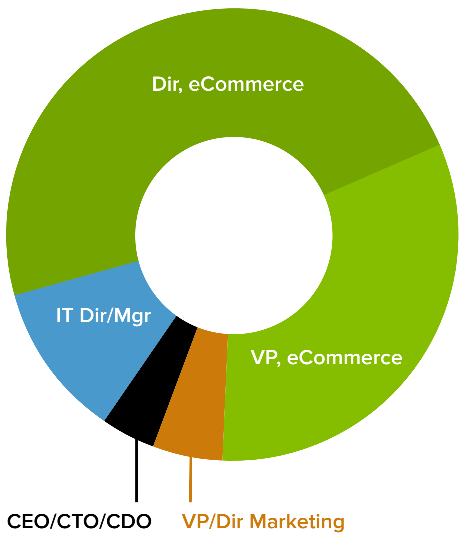
For this research report Yottaa interviewed 125 leaders from a wide range of eCommerce sites - from niche retailers all the way up to some of the biggest names in the industry. In order to measure the direct impact that performance has on the bottom line, we focused directly on executive titles from the line of business, such as Vice President of eCommerce, rather than IT executives. The research was collected both online and via telephone during a two week period in October of 2017.

RESPONDENT DEMOGRAPHICS

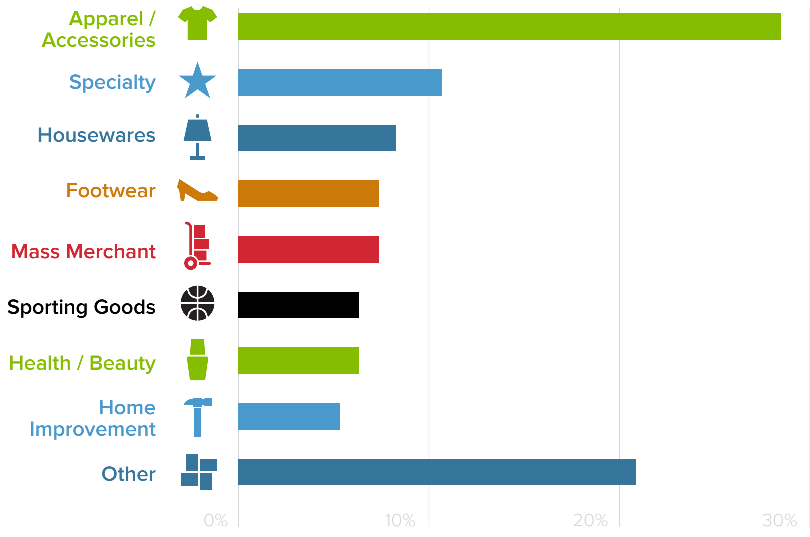
ONLINE REVENUE



TITLES



RETAIL SEGMENTS



The 2017 eCommerce Leaders Survey: Summary of Findings

1

Speed = Conversion

71% of eCommerce leaders say their slow site speed is causing shoppers to leave

Retailers can gain an average of **$58* MILLION** annually by optimizing page load times

2

3rd Party Tug of War

Retailers aren't keeping up due to the internal tug of war with IT

$1.5 MILLION average investment in 3rd parties annually

47% say IT restricts the number of 3rd parties eCommerce leaders can add

3

Digital Innovation is a RACE

97% need a more innovative site to compete

4

Holiday: Who's naughty? Who's nice?

64% tune performance for the holiday

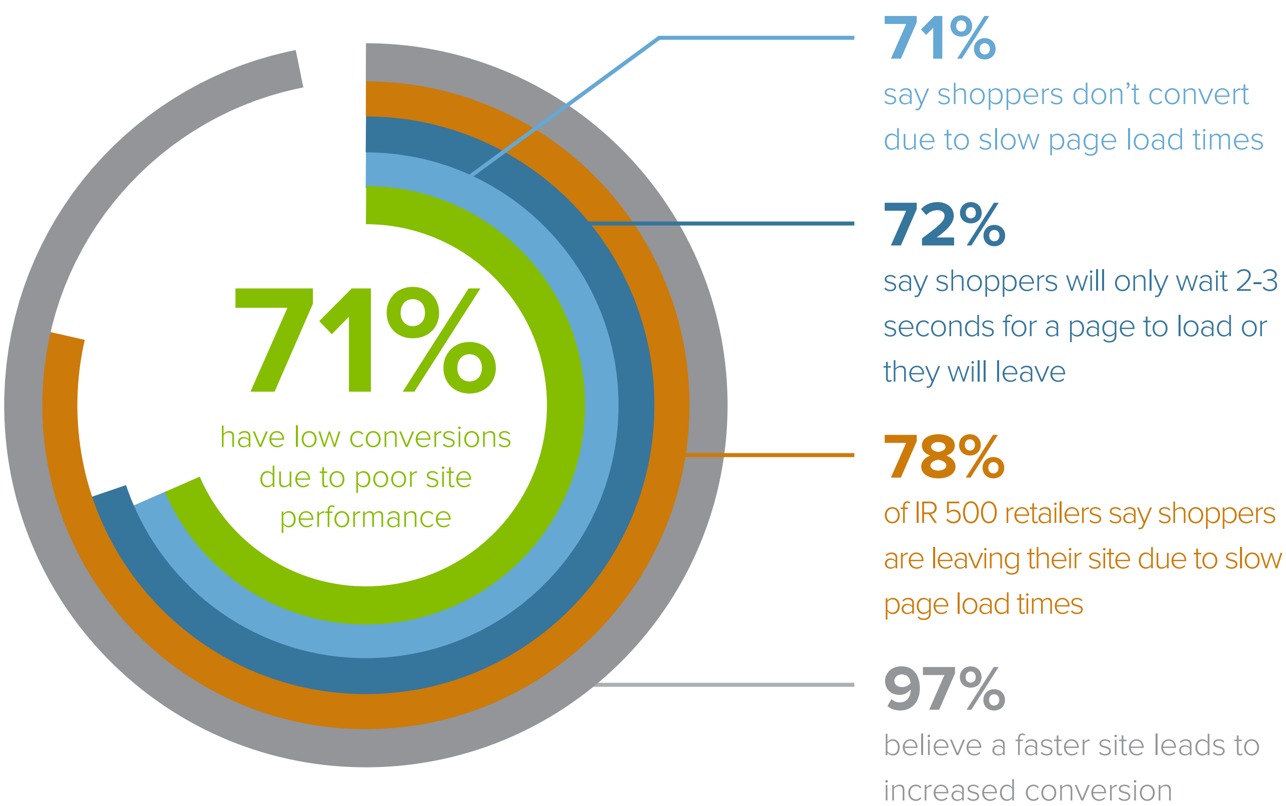
eBags

Find out about eBags holiday prep checklist

1 The Bottom Line: Speed = Conversion

The one topic that nearly all survey respondents agreed upon: fast websites result in higher conversions. 97% believe that website performance directly impacts their online revenue. In addition to the cost of customers leaving the site before buying, slow performance also harms retailers' brand identity and hurts efforts to make up for falling store revenue with their online channel. In fact, 53% of eCommerce leaders said they are facing increased revenue targets as a result of falling store sales, and losing sales from slow website performance is making this even more difficult.

Unfortunately, despite its importance, retailers are making little progress improving website performance. After years of being the focus for many web teams, the survey showed that over 60% of eCommerce leaders still believe their website pages don't load quickly enough. And even more troubling is that 71% say they have lower conversions due to poor web performance.



After 3 seconds, the eCommerce site is too slow

97% can't be wrong. But what does it mean for my site?

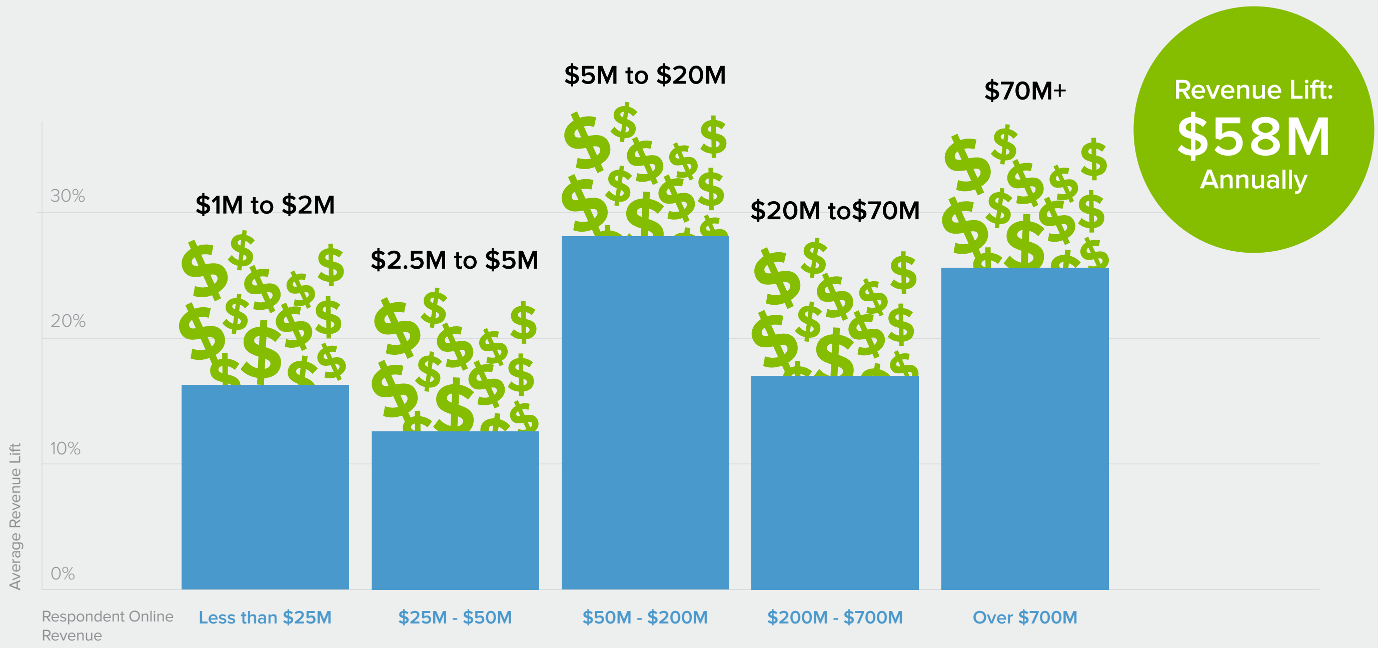
The fact that nearly everyone in the survey believes that website performance has a direct impact on conversion rates should be a loud wake up call for all retailers. Retail sites simply need to load faster. While some eCommerce companies have seen up to 20% increases in conversion from tuning site performance, many find it hard to know what the impact will be on their business.

How can you measure the impact of performance on your conversion rate?

eBags loses 20% conversion for every extra second of page load time

Amazon / Walmart has stated that every second costs 7% conversion

Average conversion lift* is approximately 10% when website performance is optimized. What would a 10% conversion lift mean to your brand annually?

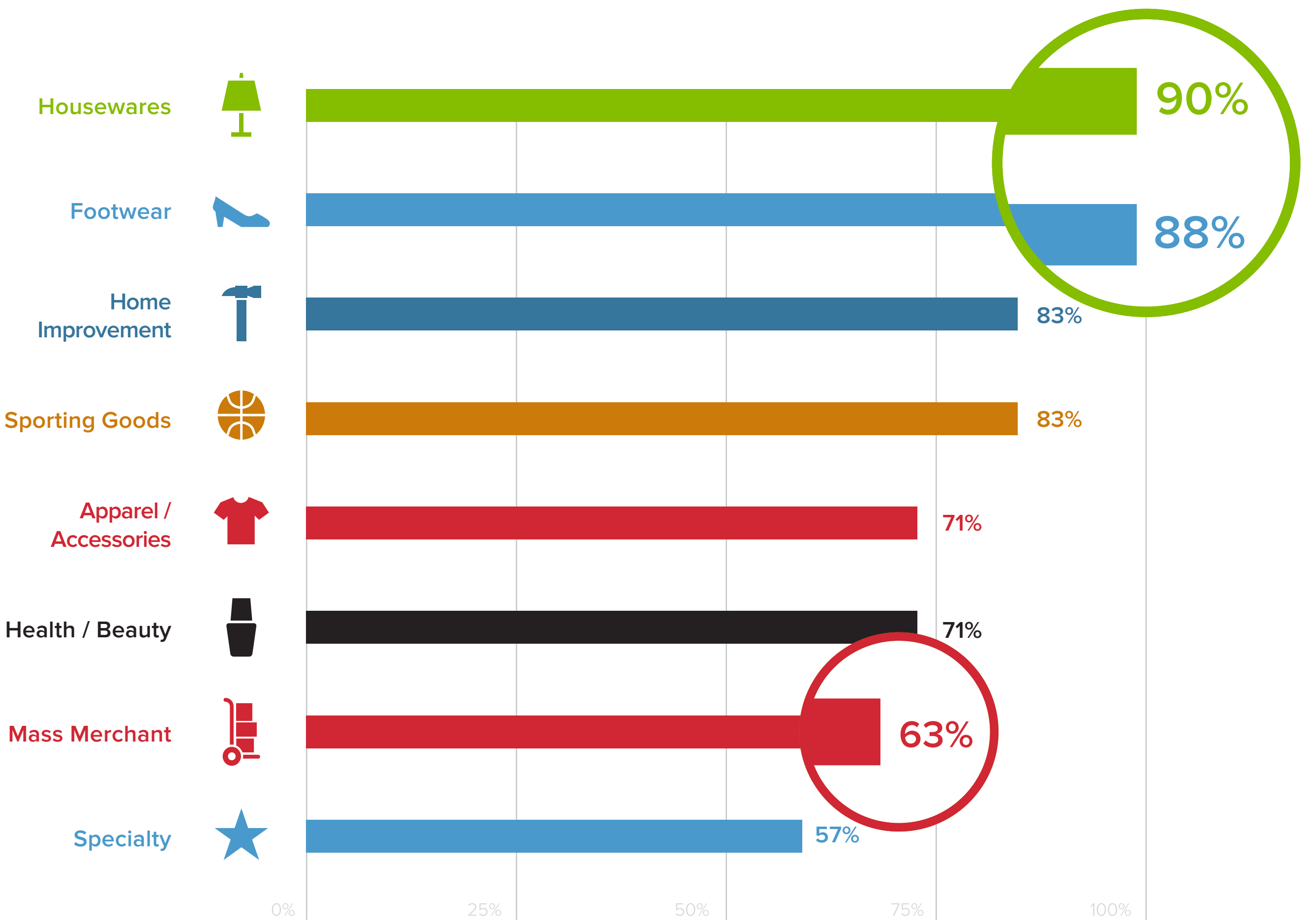


*Assumes 10% conversion lift (from 2% to 2.2%) for survey respondents

How long will your shoppers wait?

The research revealed interesting trends among key retail industry segments. While 71% said they believe shoppers leave their sites due to slow site performance, some retail segments perceive a much higher or lower tendency in shopper abandonment. For example, segments such as housewares and footwear, due to the highly competitive nature of these markets, are more likely to experience a high percentage of shoppers leaving due to poor performance. Other segments believe they have a much lower percentage of performance-related shopper abandonment. For a segment such as mass merchants, this could be due to eCommerce leaders believing that brand loyalty will result in shoppers that are willing to wait longer. However, it has been proven that shoppers will only wait 3 seconds for a site to load, regardless of the market segment.

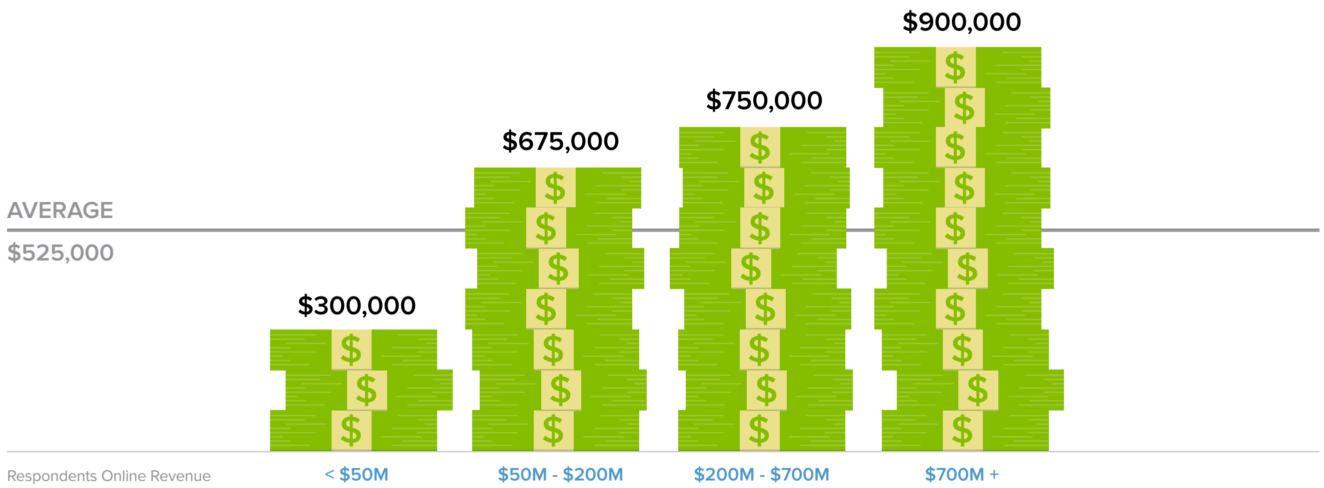
DO SHOPPERS LEAVE YOUR SITE DUE TO SLOW PAGE LOADING?
% THAT SAID YES



Heavy investments. But where's the ROI?

While the survey revealed that the majority of eCommerce leaders were dissatisfied with their current site speed performance, it's not for lack of investment. The average retailer polled invests $525,000 annually in custom performance development (i.e. IT development staff). Retailers are also making significant investments in SEO to drive shoppers to their sites, and investing in third party technologies that provide more engaging experiences. However, with 71% of respondents believing that shoppers are leaving their sites due to poor performance, these investments in driving and engaging traffic aren't paying the big dividends that retailers had hoped for.

INVESTMENTS IN CUSTOM PERFORMANCE DEVELOPMENT



Are you getting the full ROI from your investments?

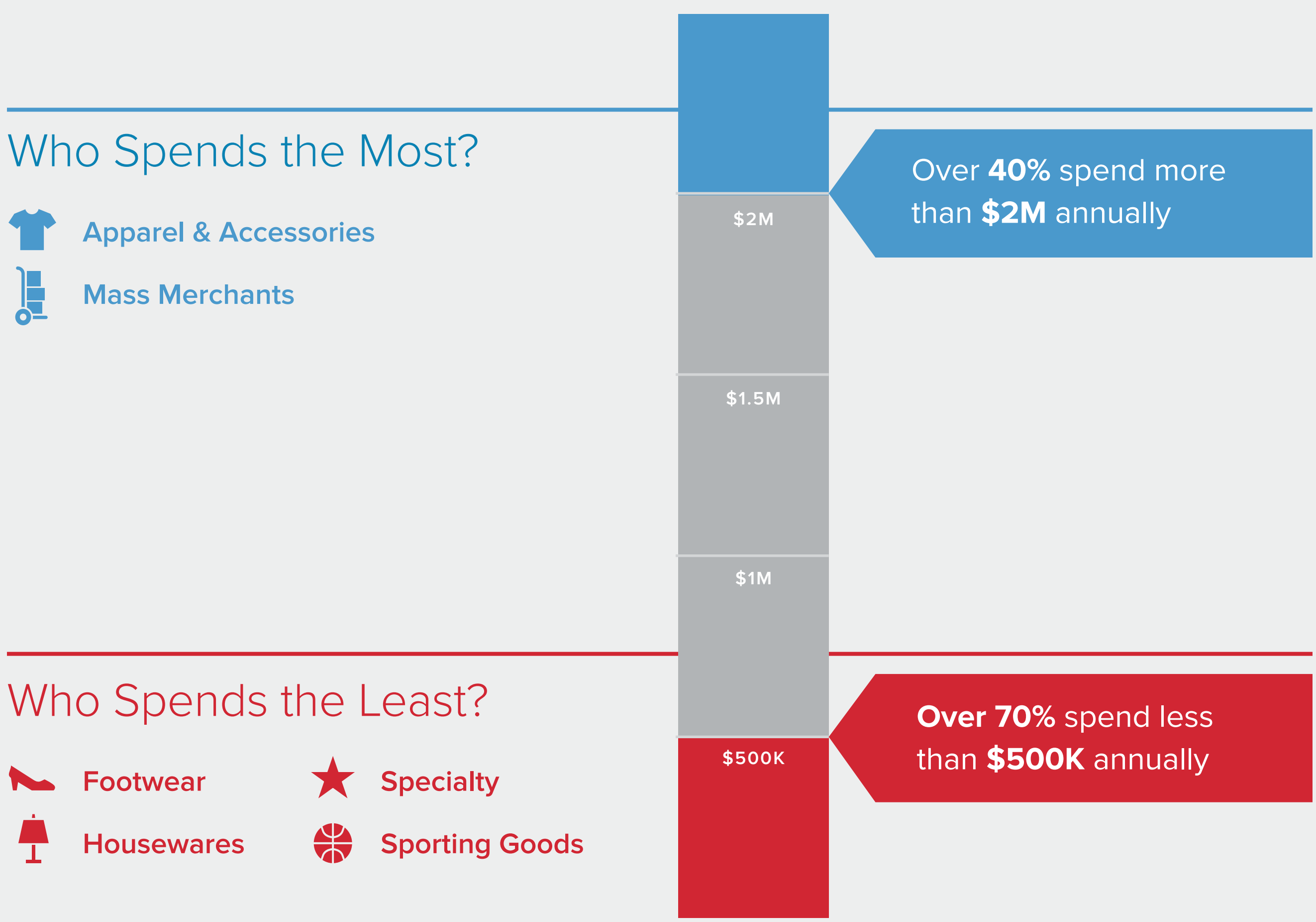
AVERAGE INVESTMENT IMPACTED BY SLOW SITE PERFORMANCE	
Custom Optimization Development	$525,000
SEO/Paid Search	$475,000
3rd Party Technologies	$1,500,000
Total Investments	**$2,500,000**
Average Revenue Lift Opportunity (when performance is optimized)	**$58,000,000**

2 The 3rd Party Tug of War

Now more than ever, retailers rely on 3rd party technologies to deliver rich and engaging experiences for their shoppers. Technologies such as personalization, recommendations, ratings, etc., can be added quickly via tag managers to increase revenue for the site.

Evidence of the ever-growing adoption of 3rd parties jumps out of the survey data. The retail leaders revealed that they spend more than $1 million a year on 3rd party technologies and add three new 3rd party features each year. When asked about their plans for the future, retailers want to add even more.

3RD PARTY FEATURE SPENDING



AVERAGE INVESTMENT IN 3RD PARTY TECHNOLOGIES

>$1,000,000

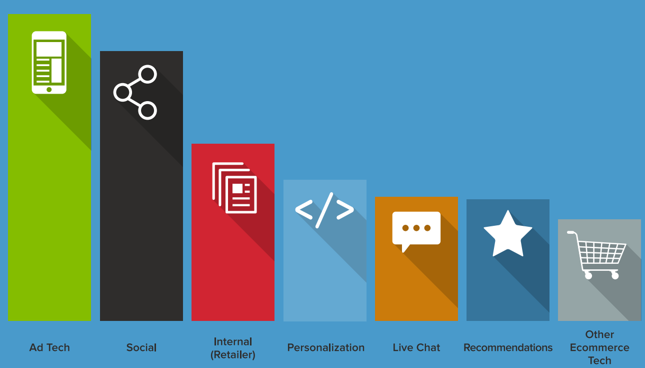
Spend over $1 million per year on 3rd party features

3

Add three new 3rd party technologies to their eCommerce site annually

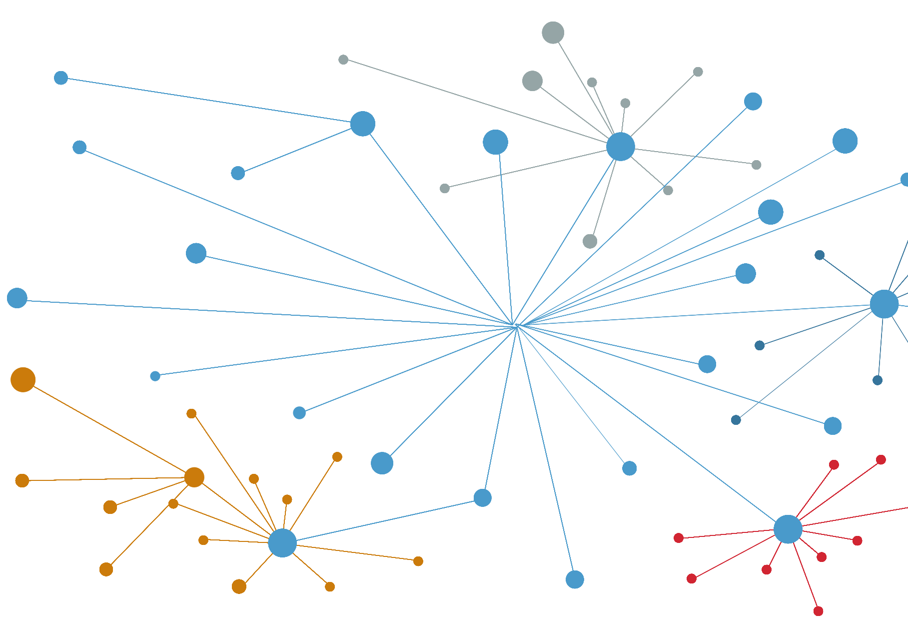
THE WORST OFFENDERS

The most error-prone 3rd party technologies that are currently on eCommerce sites



SITE COMPLEXITY

Average eCommerce website makes 220 calls to 80 servers



Line of Business vs IT: The Tug of War

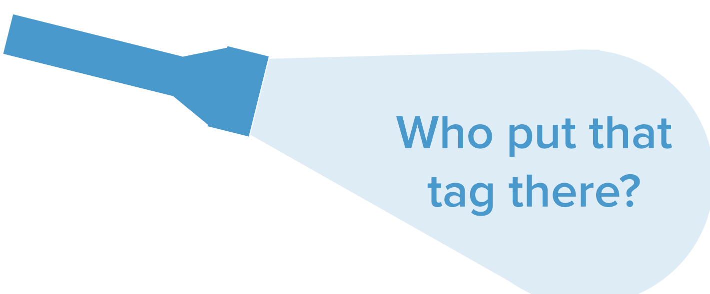
The ease of adding 3rd party technologies has led to an explosion of tags on eCommerce sites that serve a variety of functions (marketing, merchandising, advertising, etc.). While lines of business continue to add more third parties, IT teams have a different focus. They are mandated to ensure that the site is alway available, operating efficiently, and fast.

As a result, there is often a tug of war between the lines of business and IT. Business groups want to keep adding and testing new features to optimally engage shoppers. However, IT is often resistant to add new site technologies as they might cause performance latency and lack of visibility into all browser-based technologies on the site. So it's no surprise that 47% of survey respondents reported that their IT teams have placed restrictions on adding new 3rd party technologies to their sites.

No 3rd Parties Past this Point

47% of eCommerce IT teams restrict the use of 3rd party technologies and rich content

3RD PARTIES: DUPLICATION AND LIMITED VISIBILITY



51% of retailers don't even know which 3rd party services are in use on their website

47% believe they have multiple 3rd party services doing similar things

3 The Digital Innovation Race is On

eCommerce leaders expressed a strong need to innovate in order to stay competitive. This is not groundbreaking, but what's interesting is how they are doing it. Mobile continues to be a key focus, and more than half said they are looking to move away from traditional, monolithic CMS and eCommerce platforms. They are already planning on a future of technology delivered as back-end and browser-based micro-services.

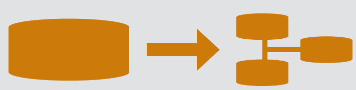
Platform Out. Micro-services In.

Retailers can no longer wait years for their platform provider to deliver functionality improvements that shoppers demand today. As a result, retailers are embracing back-end and browser-based services to innovate their experiences quickly to meet shopper expectations.

The digital innovation race is real

90% said they need a more innovative site to compete

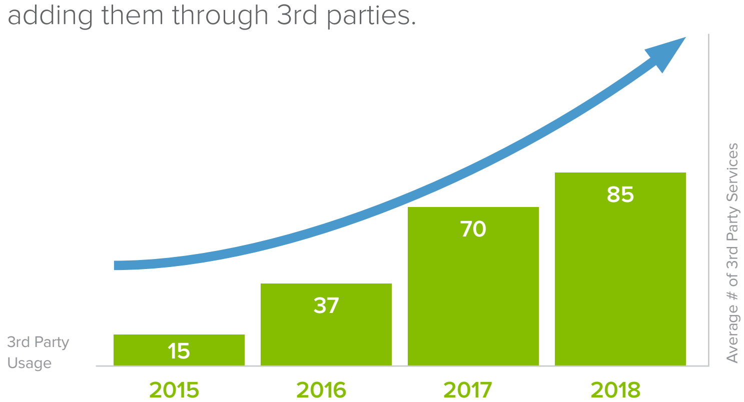
Yet **47%** say they can't add more third parties due to IT concerns over page load times



53% of eCommerce leaders are willing to move off a monolithic platform to micro-services based architecture

Only the Best Will Do

According to the study, retailers want the best functionality available for their shoppers and they are adding them through 3rd parties.



3rd party technology is becoming the primary means of delivering new eCommerce capabilities

Retailer Priorities Demand Flexibility

Respondents indicated that they need to embrace cutting-edge technologies as they emerge. This requires a flexible, services-based architecture that can quickly deliver new features.

Ecommerce leaders listed some of the innovative areas they are working on:

- **Chat Bots**
- **Augmented Reality**
- **IoT/Voice**
- **AMP pages**
- **Alternate Payments**

Mobile Only... Only Not Yet

There have been many claims at industry conferences that 2017 was going to be the year mobile drives more than 50% of eCommerce traffic. Although the survey confirmed a continued shift toward mobile, only **36%** of survey respondents reported that the majority of their traffic is from mobile shoppers. But those shoppers are buying more frequently, with **27%** of transactions for these retailers coming from mobile devices, which is higher than we expected.

Cutting Edge: Health & Beauty

7 out of 10 have over 50% mobile traffic

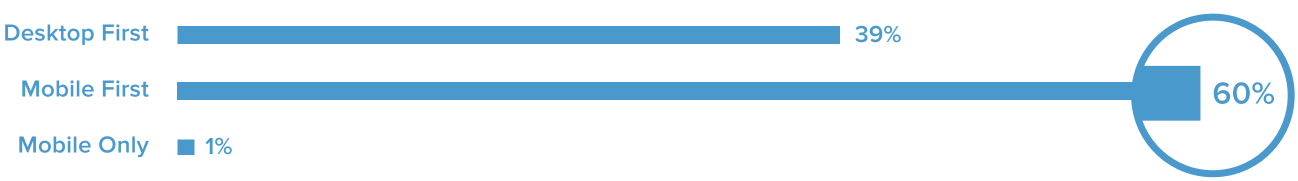
9 out of 10 are taking a mobile first approach

Preparing for the Flood: Mass Merchants

(Only) 13% receive significant mobile traffic today

(Yet) 100% of those surveyed have made mobile devices their focus

In term of device focus, “Mobile First” has taken the lead as the dominant guideline for website development. However, we found that the often discussed (and aspirational) “Mobile Only” approach is still more hype than reality. The desktop still has its place.



4 2017 Holiday Wish - Faster Mobile and 3rd Party Stocking Stuffers

eCommerce is changing so rapidly that every holiday season is different from the last one. This year online revenue will be more important than ever before, as 64% of large retailers ($50M+ revenue) say their digital channel has to make up for lost store revenue.

This puts greater pressure on eCommerce teams to attract new sources of traffic and convert shoppers when they arrive. They need to draw the new mobile-first generation, and keep them from leaving to comparison shop on Amazon. As a result, the focus of retailers is shifting to SEO, mobile visitors, and innovation.

Retailers also realize that investing in bringing visitors to a more innovative site is wasted if the site takes too long to load. The data shows that retailers see customers leaving when the site isn't fast enough. As a result, retailers have been tuning their sites in anticipation for the holiday.

What are their holiday concerns?

90% say they need to innovate better if they want to compete against other brands

64% don't think their pages are loading fast enough

48% say they need to add more features to their site

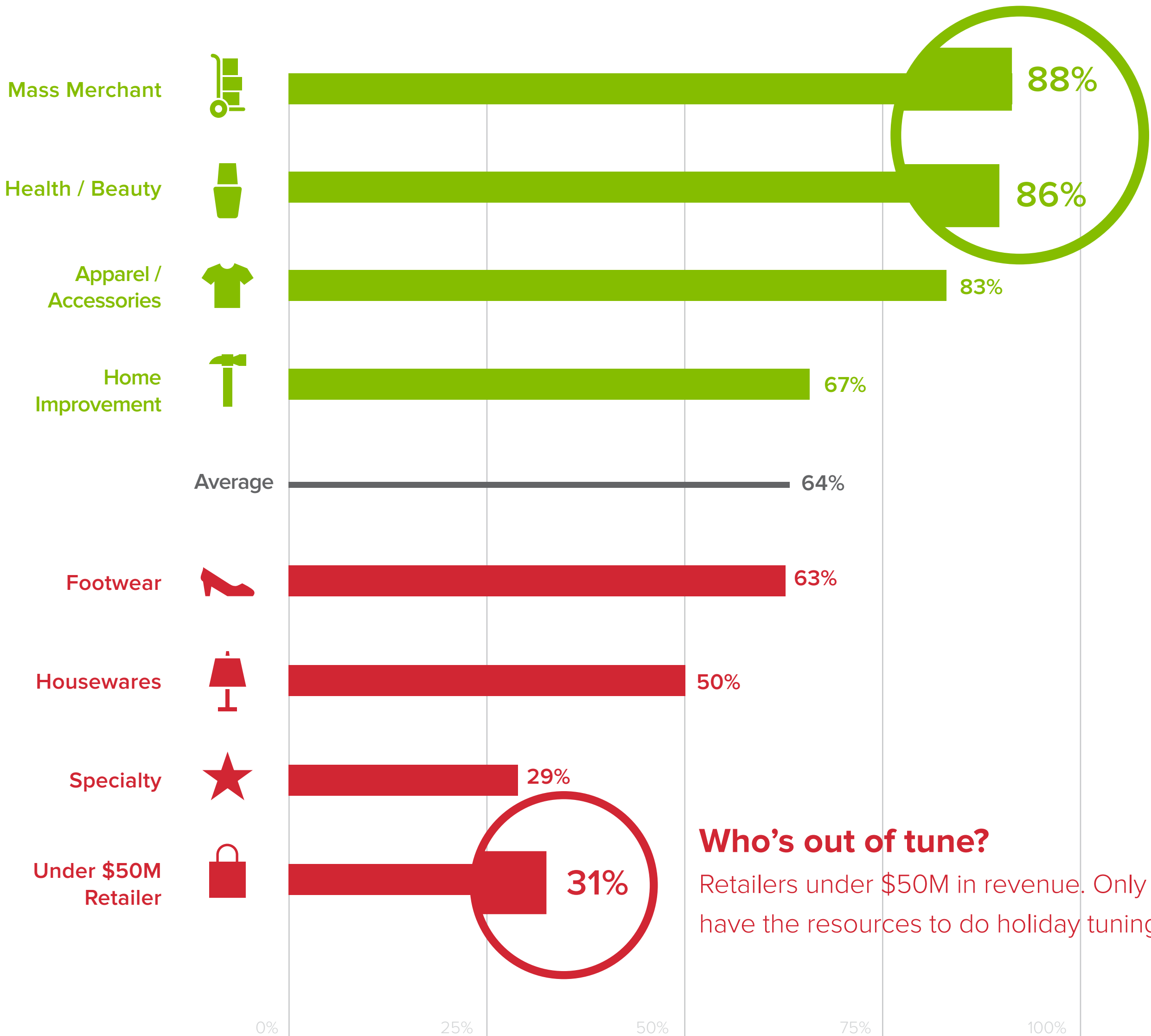
Holiday Wish List

70% of eCommerce Leaders plan to invest in 3 or more of the following:

- ✓ Faster Checkout - **74%**
- ✓ Website Performance - **70%**
- ✓ Mobile Optimization - **69%**
- ✓ Personalization - **52%**
- ✓ Re-Platforming - **36%**

Who loves a good holiday tune?

Which industries make performance tuning an important part of their holiday release cycle?



Who's out of tune?

Retailers under $50M in revenue. Only 31% have the resources to do holiday tuning.

To Tune, or Not to Tune

During the 2016 holiday shopping season, one fashion retailer's faster website contributed to a +40% increase in traffic, +92% increase in mobile visits, and +80% increase in mobile sales between Thanksgiving and Cyber Monday

Who's been Naughty?

These industries invest much less than others

Who's been Nice?

These industries are spending the most to be ready for the holiday

SEO	
Specialty, Sporting Goods, Footwear spend less	**Mass Merchants and Office Supplies spend the most. More than ⅔ spend over $500k per year**
THIRD PARTY FEATURES	
Housewares, Footwear, Specialty, Sporting Goods, and Entertainment spend the least. 70% spend less than $500k a year	**Apparel, Mass Merchants, Health & Beauty & Office Supplies spend the most. More than half spend over $500k per year, and many spend over $2M per year**
PERFORMANCE TUNING	
Housewares, Specialty, and Home Improvement typically have only 1-2 developers working to make the site faster	**Mass Merchants and Office Supplies are willing to spend to get fast. Over ⅔ of have more than 4 developers focused on performance**

eBags®

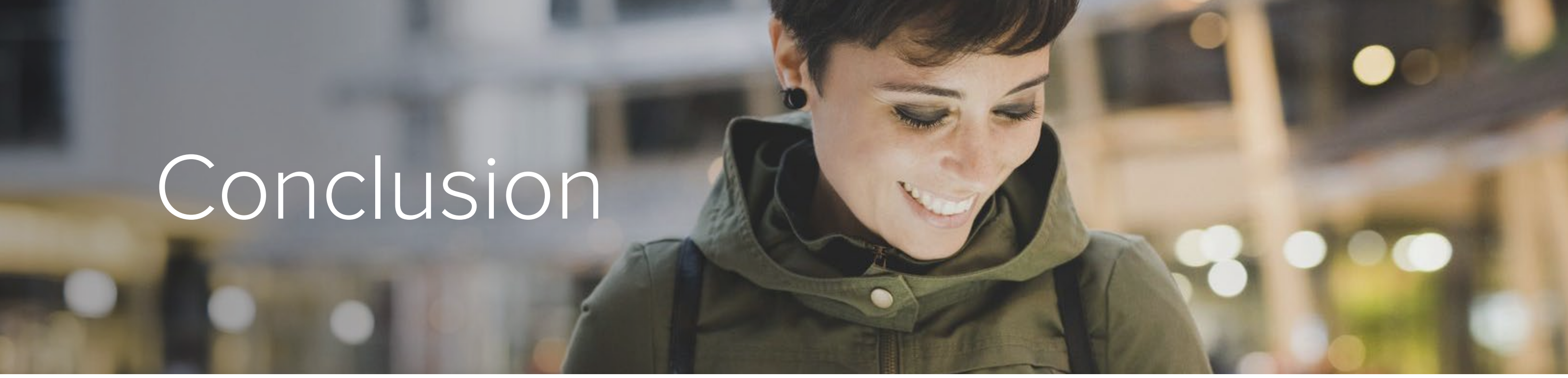
In 2015, eBags launched a new performance optimization platform on its site just before the holiday shopping season. The technology optimized images and 3rd parties, and increased the speed of its RWD mobile website.

The result:
30% page speed improvement and 10% conversion rate increase

Holiday Check List

Activities you should undertake every year to prepare for holiday traffic.

- ☑ Identify point of contacts at all your mission-critical vendors
- ☑ Perform load testing to ensure you can handle peak loads
- ☑ Make sure all call to actions work as intended (add to cart, newsletter sign-up. etc.)
- ☑ Identify slow calls (images, scripts, 3rd parties, cart look-ups) that could tie up server resources and delay loading of the site
- ☑ Monitor uptime, availability and performance to catch any problems before they escalate
- ☑ Minimize changes to the website code and infrastructure



Conclusion

eCommerce leaders face a "tug of war" when it comes to web performance. On one hand, they are facing competitive pressure to stay innovative, build new features, and provide rich and engaging online shopper experiences. To do so, they must deploy 3rd party technologies, which have been proven to significantly slow page load times. On the other hand, they are also being told to speed up their websites or shoppers will leave in droves, resulting in lost revenue. Fortunately, web performance is not an "either/or" proposition. Leading retailers have been able to balance performance and innovation to provide great shopper experiences on web pages that load under the "3 second" best practice.

Performance is Still a Problem

There was clear consensus among survey respondents that web performance is a major concern for retailers today. **71% stated that shoppers don't convert due to slow page load times**, 72% said shoppers will only wait 2-3 seconds for a page to load or they will leave, and a whopping 97% agreed that slow web performance results in lower online conversions.

What's Causing the Problem?

The biggest culprit? Third party technologies. While they are in huge demand with the average retailer spending over $1 million on them annually, these technologies result in significant performance latency. Due to the performance impact of these third parties, **47% said IT teams restrict the use of 3rd party technologies and rich content.**

What's the Benefit of Improving Performance?

While web performance continues to be a major challenge for retailers, there is tremendous upside for speeding up the loading of pages. The most obvious benefit is increased conversions with **97% agreeing that improved web performance results in more online revenue**. This was validated by the fact that the average estimated revenue lift from optimizing performance was $58 million for the retailers interviewed. In addition, improved performance also results in a better return on investment for the **$2.5 million per year that retailers were spending on custom optimization, SEO and third party technologies.** Finally, and most importantly, better performance will result in happier and more engaged shoppers who will keep coming back to the site to buy more products.

What Can You Do?

This survey demonstrates that slow loading websites are still a known problem with real revenue implications for online retailers. Prior studies have measured the impact of performance, showing that when an eCommerce website doesn't load within 3 seconds, 57% of shoppers will leave. After 5 seconds, 85% of shoppers will leave. And every second of additional page load time results in a 7% loss in conversion.

You don't have to live with these results.

Yottaa's eCommerce Acceleration Platform enables online retailers to significantly improve website speed and performance across all devices, resulting in higher conversions and more engaging shopper experiences. The cloud-based platform optimizes and sequences all your website assets:

Static & Dynamic Content

In today's fast-paced eCommerce market, retailers must deliver rich and engaging content as quickly as possible to their shoppers or risk losing sales to competing sites. Yottaa's InstantOn allows for "instant" shopper engagement by automatically identifying, optimizing, and caching static content, while at the same time decoupling dynamic content, which Yottaa then injects into the browser once it's available. The end result: rich, engaging pages that load instantly.

3rd Parties

Most eCommerce sites use up to 70 third party applications to provide richer experiences for their shoppers. These applications, such as live chat, personalization, recommendations, adtech, and social media channels are essential in terms of building brand loyalty and engaging customers. While these applications provide better shopper experiences, they also significantly affect the performance of eCommerce websites. The average retail web page makes 220 calls to 80 servers, each representing a possible point of failure. Yottaa's Application Sequencing enables sites to optimally manage the order of execution for 1st and 3rd party assets, so even the most engaging (and 3rd party heavy) pages load quickly and are instantly interactive.

Mobile

More and more shoppers on eCommerce sites are coming from mobile devices, but most do not convert to a purchase. Slow load times on responsive-designed (RWD) mobile sites is a leading cause of low mobile conversions. Yottaa accelerates website content across all devices resulting in significantly increased page load speeds on mobile devices and ensuring that RWD does not impact mobile performance. This enables online retailers to complete the evolution from mobile commerce as a secondary channel to the primary driver of more robust retail revenues.

Images

Images greatly enhance online experiences by providing multi-angle, high-resolution images of products shoppers are seeking. But they also significantly impact page load times due to their larger size. Yottaa's Content Transformation provides eCommerce companies with the ability to control how web page content is rendered through lazy loading, compression, and transcoding of images with no code change. This allows retailers to keep their content-rich site as is, while rendering it smarter and faster within