

Survey



How 5 Seconds Can Make a Better E-Commerce Site

A STUDY OF BOTH SIDES OF THE (E-COMMERCE) COIN



BY: TIM MATTHEWS AND NICOLE BANKS

Contents

Why We Did This Study	03
Methodology	04
What We Found	05
The Consumer	06
The Website Operator	14
Appendix	29
About Imperva Incapsula	40
Get Started	41

Why We Did This Study

We wanted to see how shoppers and website operators do and do not see eye to eye when it comes to an online shopping experience.

To do this we performed a survey of online consumer and shoppers to understand online shopping behaviors including purchase habits on cross-platform devices, how shoppers judge whether a website has good or poor performance, and what drives shoppers to return to a website to shop again.

We also conducted an online survey to better understand how website operators prioritize the operational challenges they face including primary website performance issues, economic benefits from performance improvements, and specific site performance goals and investments.

Methodology

The E-Commerce User Survey was conducted by Cicero Group on our behalf from October 26, 2015, to November 11, 2015, and included 4,568 completed surveys. Several screening questions were employed to capture relevant data from shoppers, including being over the age of 18, living in the U.S., and who consider their shopping frequency to be slightly often and above.

The Incapsula E-Commerce Operator/Seller Survey was conducted from October 1, 2015, to October 15, 2015. A total of 250 surveys were completed (28 from Canada and 222 from the United States).

For more details of Methodology, see the Appendix

What We Found

- Half of online consumers use multiple devices to shop online, [see page 9](#). However, a **majority of low-traffic websites are not prioritizing cross-platform optimization** in their web plans in the next 12 months, [see page 24](#).
- Operators say the majority of **incoming traffic (almost 70%) are from PC/Laptops**, [see page 17](#).
- **Small e-commerce vendors are lagging** in mobile/tablet development compared to large e-commerce vendors, [see page 18](#).
- If a website takes **more than 5 seconds to load, 61% of users say they will abandon their cart** and not return, [see page 10](#).
- Operators of **sites with low traffic have experienced issues with transaction times (18%) and page load times (27%)**, [see page 26](#) but they do not prioritize performance improvements unlike operators of sites with high traffic. **20% of low-traffic site operators say they do not have plans to optimize** performance-related improvements, [see page 24](#).
- Of website operators surveyed, **43% say they are generally unfamiliar with load balancing tools. More than half (53%) say they are relatively unfamiliar with content delivery network (CDN) tools**, [see page 25](#).

01

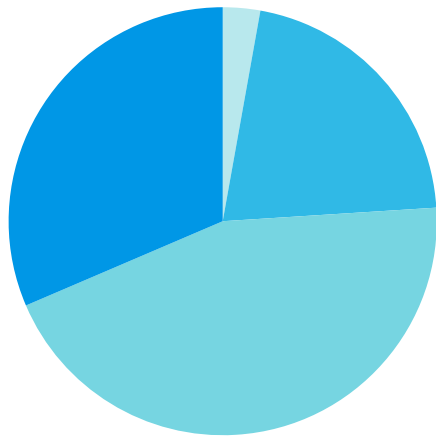
The Consumer

Key Takeaways

- Nearly **50% of users surveyed say they use multiple devices** (mobile, tablet, and laptop) to shop and purchase items online but will not come back if the website is not optimized for mobile devices, [see page 9](#).
- A majority of consumers **(61%) will only wait 5 seconds or less for a page to completely load**, [see page 10](#).
- Of consumers surveyed, **48% say they would leave a website if performance is slow**, [see page 11](#).
- When faced with a website with poor performance, **67% of consumers say they were unlikely to return**, [see page 12](#).
- Consumers prioritize website speed and ease of navigation over video performance see, [page 13](#).

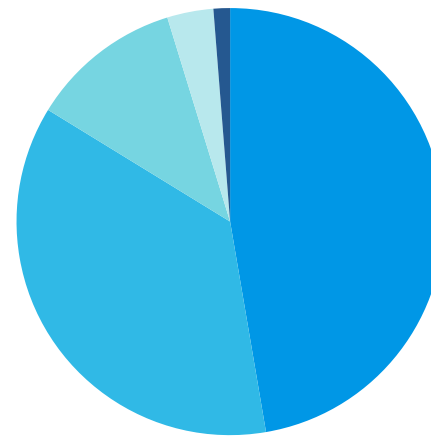
Demographics

Buying Frequency



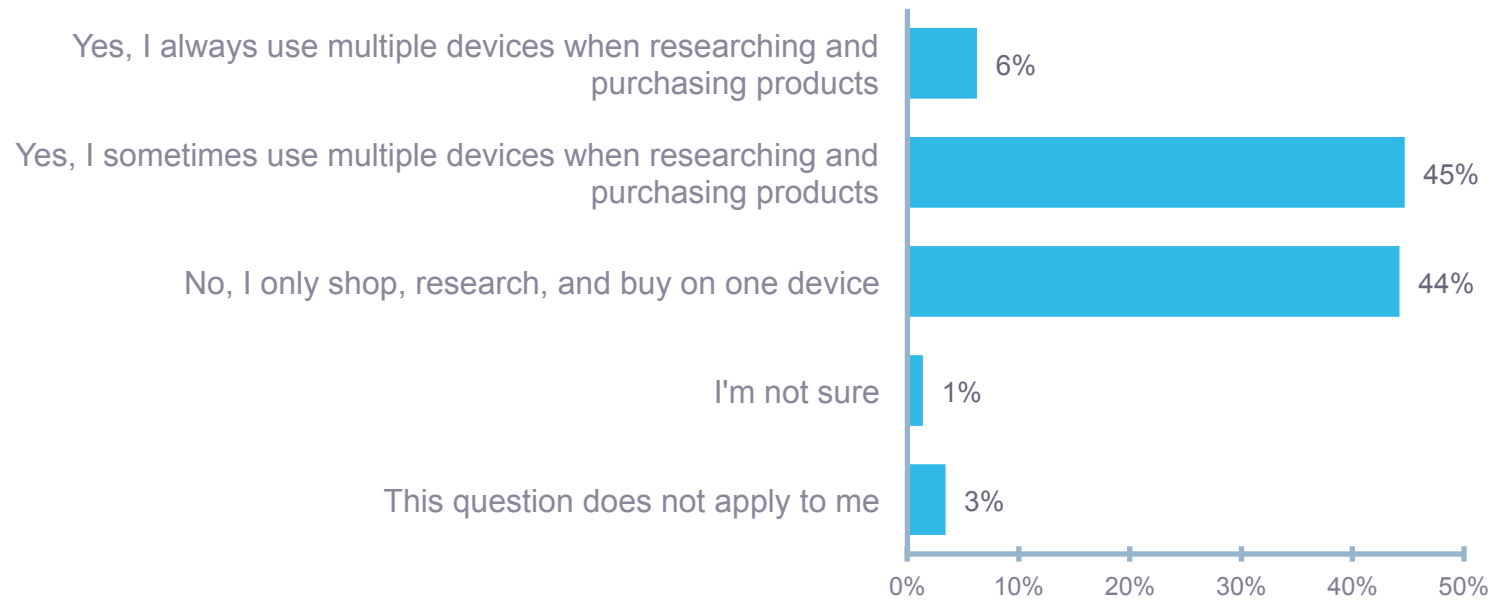
- Every day
- Once or twice a week
- A few times a month at least
- Once a month

Monthly Shopping Spending



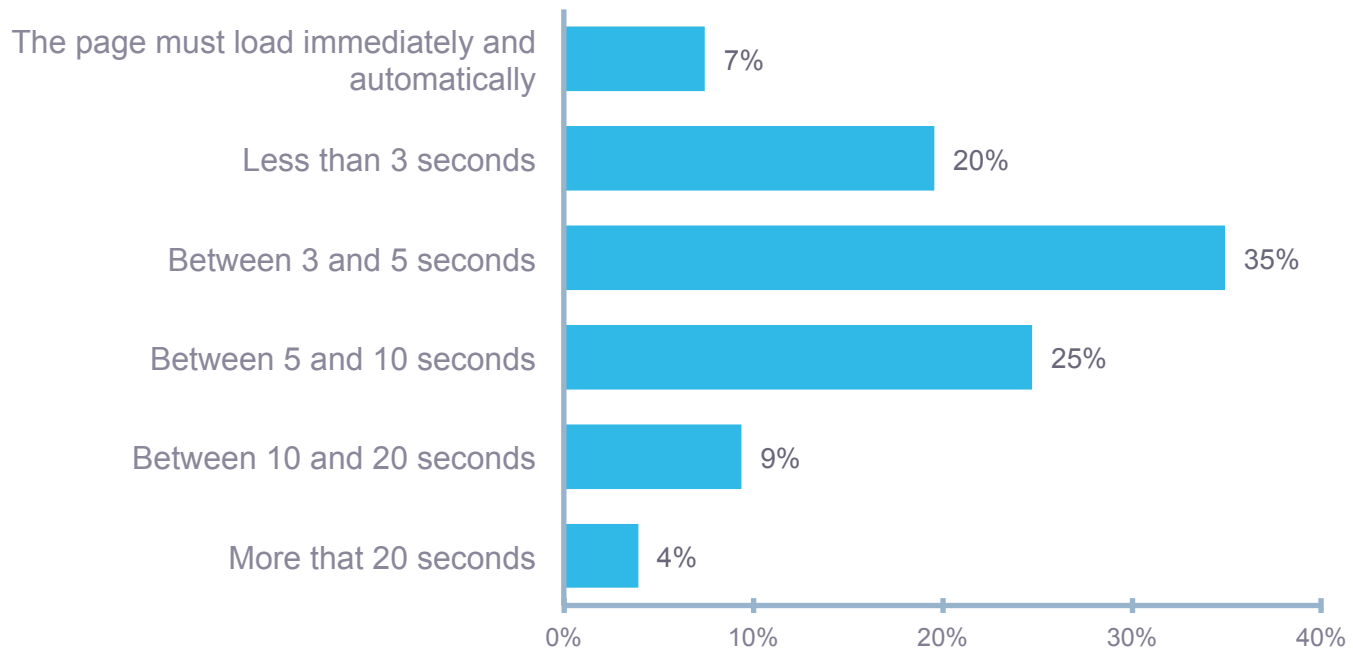
- \$0 - \$100
- \$101 - \$250
- \$251 - \$500
- \$500 - \$1,000
- More than \$1,000

Are you typically a multi-screen shopper? For example, do you research a product on one device such as a mobile phone or tablet but purchase the item on a different device such as a laptop computer?



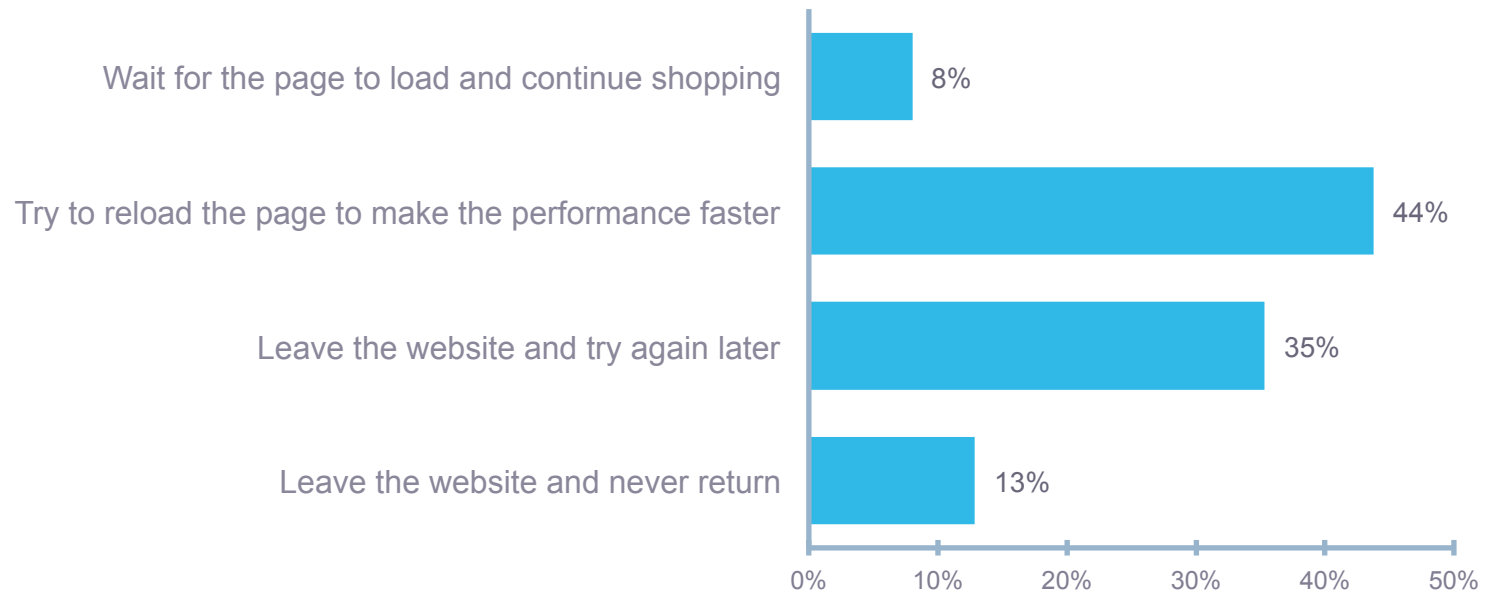
Total Response: 4,568

In your best estimate, how long are you willing to wait for a page to load while shopping?



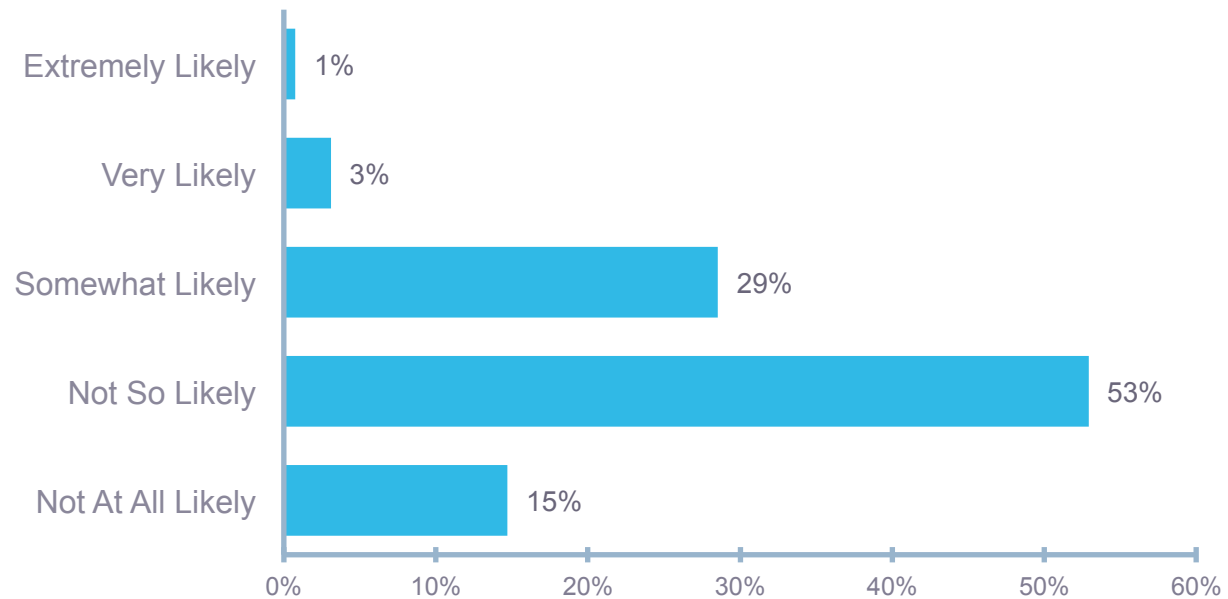
Total Response: 4,568

When a website has poor/slow performance, you are likely to...



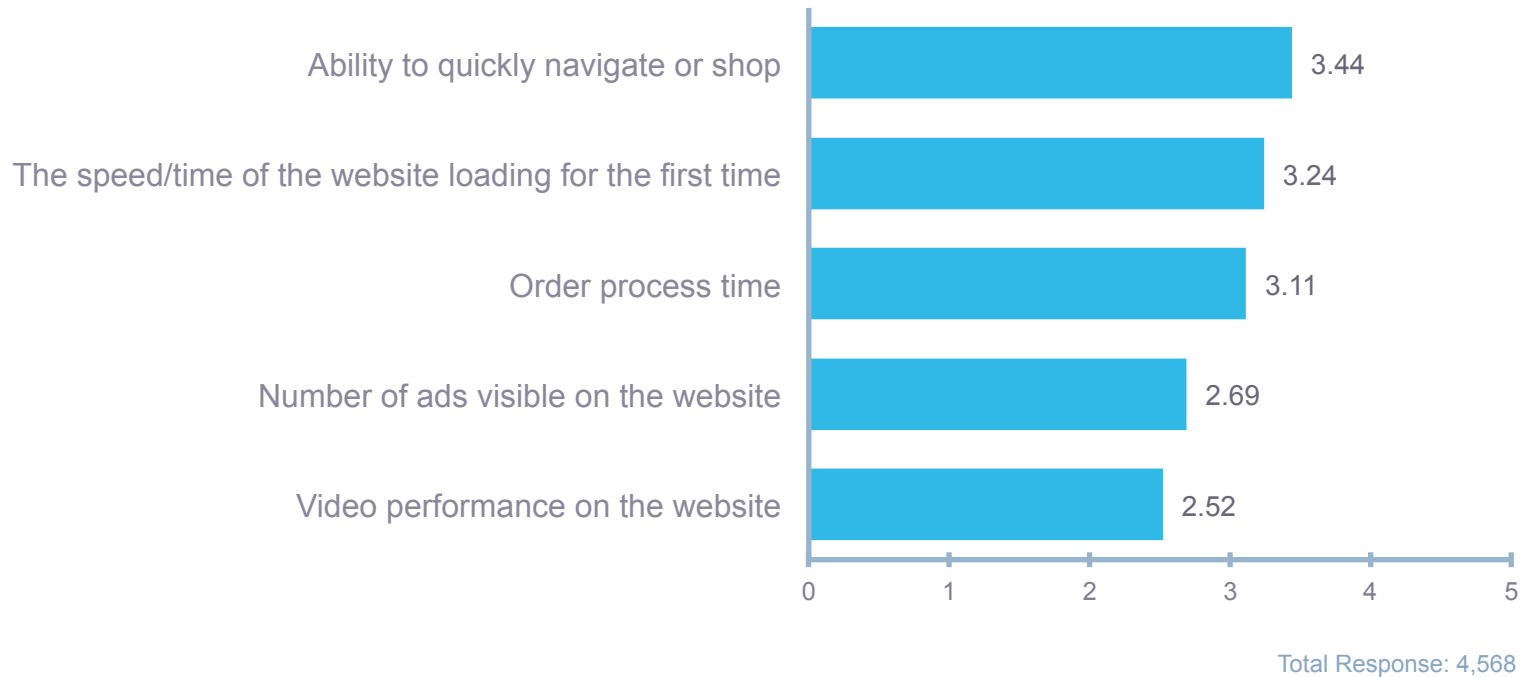
Total Response: 4,568

How likely are you to return to a website with poor performance?
(For example, pages load slowly or don't load completely, photos are poor quality)



Total Response: 4,568

On a scale from 1 (least important) to 5 (most important), what are the key performance features of a website?



02

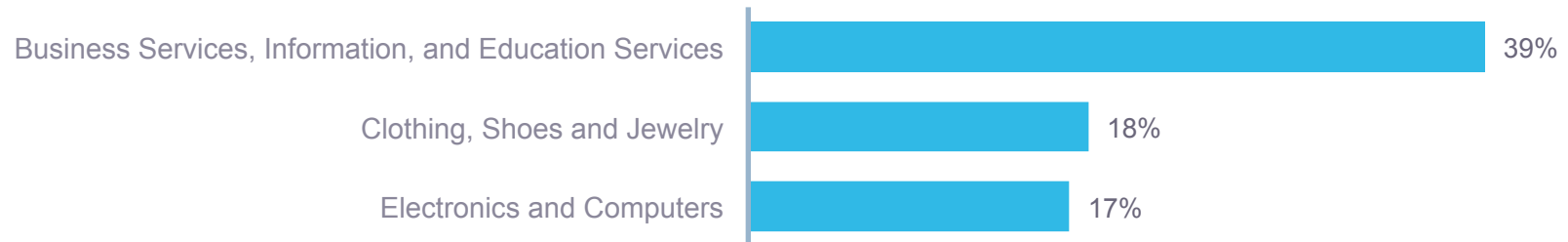
The Website Operator

Key Takeaways

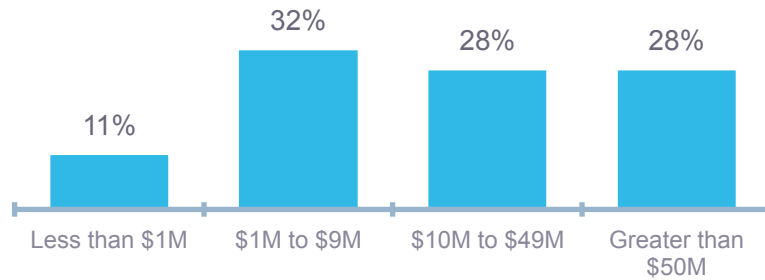
- Operators say the majority **(68%) of website traffic is through PCs/laptops, 32% of traffic is through mobiles/tablets**. Most traffic is from **Internet Explorer (32%) or Google Chrome (30%)**, [see page 17](#).
- In the past 12 months, **73% of operators surveyed** say they have **experienced some performance-related problem**. **36% reported page load time was one of the biggest issues**, [see page 19](#).
- A large majority of website operators **(86%) say they believe mobile compatibility is a factor in increasing completed purchases**. 78% of low-traffic websites (less than 30K visitors per month) and 90% of medium-high traffic websites (30K or more visitors per month) believe this to be true, [see page 18](#).
- **Website operators believe improved page load times will result in an increase in retention and brand loyalty (57%)** and consumer satisfaction (57%) more than improved brand perception (39%), [see page 21](#).
- In the next 24 months, **84% of businesses say they will make website improvements**, [see page 24](#).
- Website **operators believe conversions lost in the past 12 months are due to bandwidth availability (19%)** and page load time (16%). Annual revenue loss is due to either bandwidth availability (19%) or page load time (14%) [see page 20](#).

Firmographics

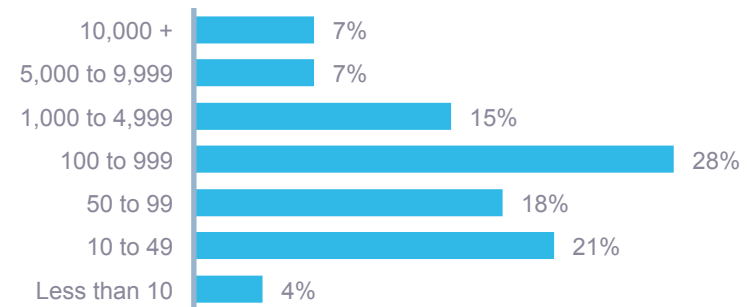
Top Three Primary E-commerce Products Sold
n=250



Annual Company Revenue (\$USD)
Includes e-commerce and "brick-and-mortar", n=250

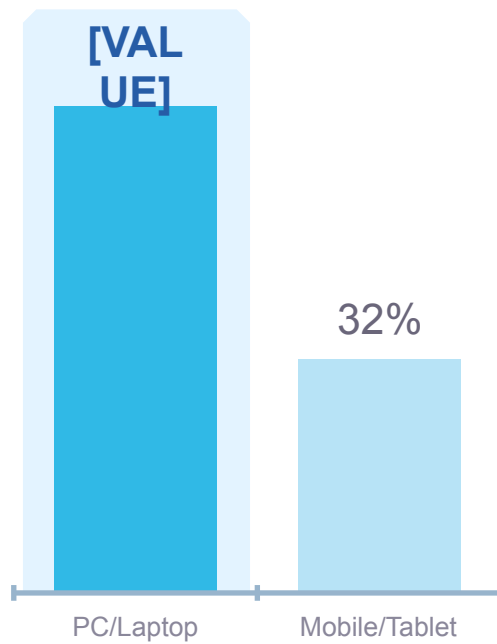


Company Employees
Includes e-commerce and "brick-and-mortar", n=250

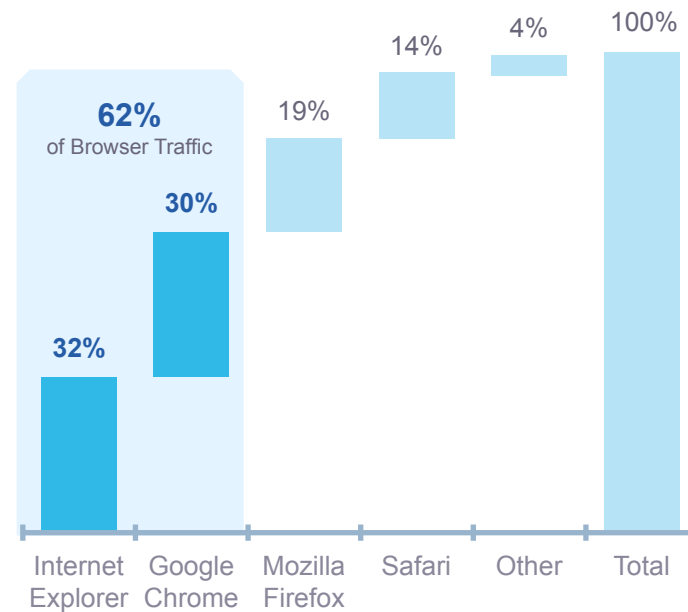


Internet Explorer and Google Chrome are the browsers of choice for most visitors

Site Traffic: PC/Laptop vs. Mobile/Tablet
n=250



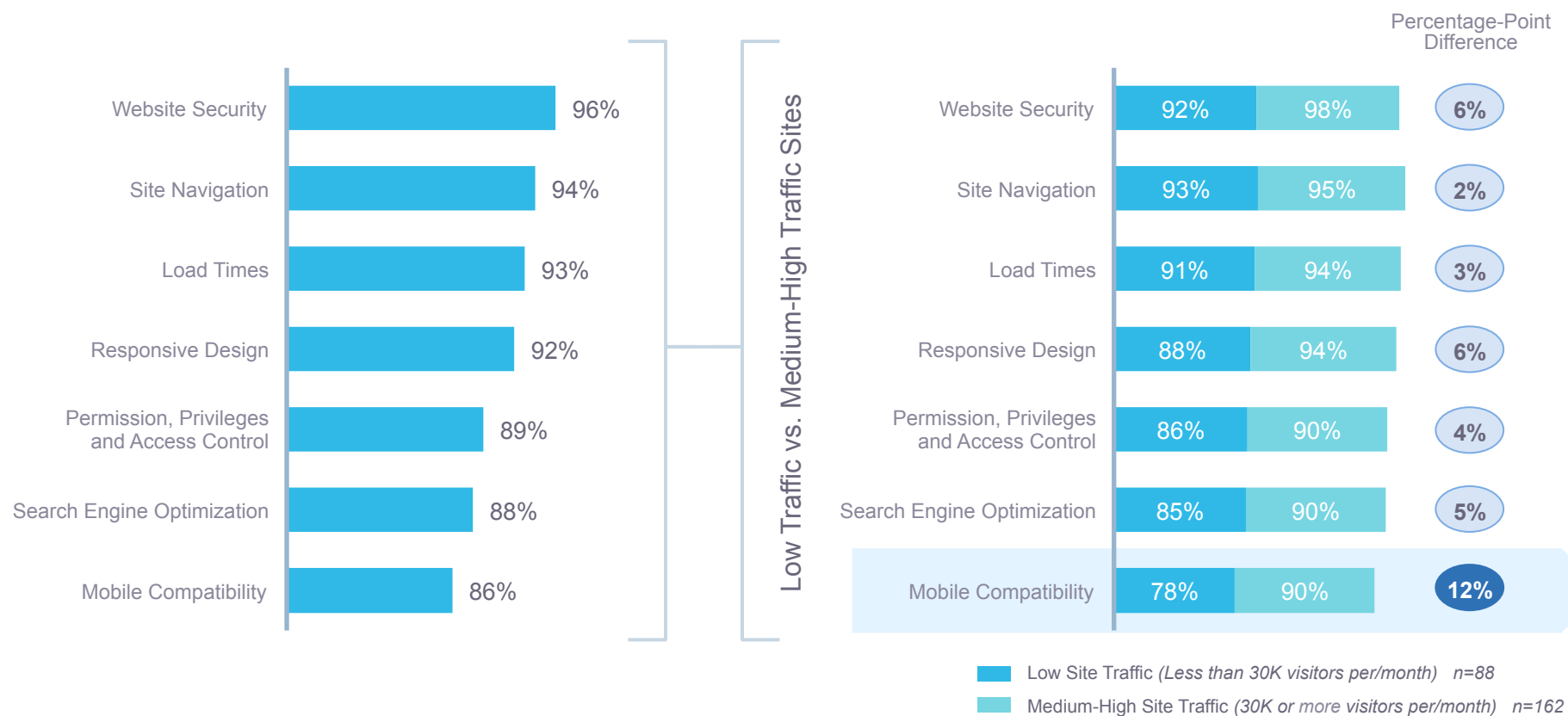
Proportion of Site Traffic by Browser Type
n=250



Mobile compatibility is a priority for high-traffic website operators

Importance of Each Factor as it Pertains to Increasing Overall Site Conversion Rates

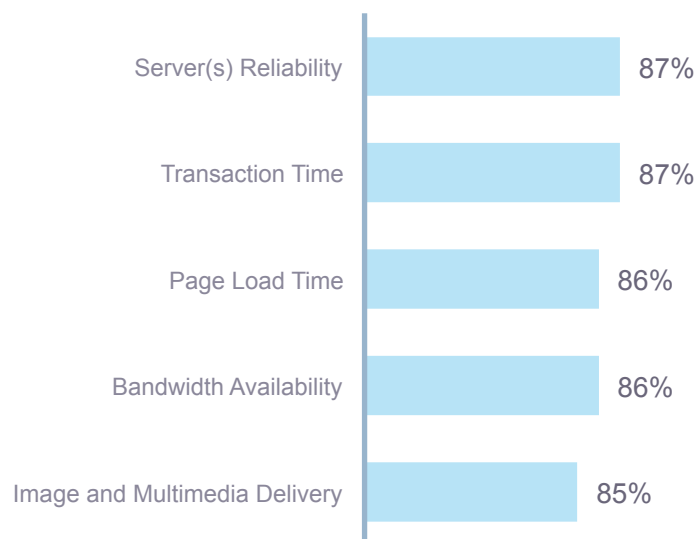
Percentage figures represent those who selected "Fairly Important" and "Very Important," n=250



More than 70 percent of website operators have experienced some performance-related issues

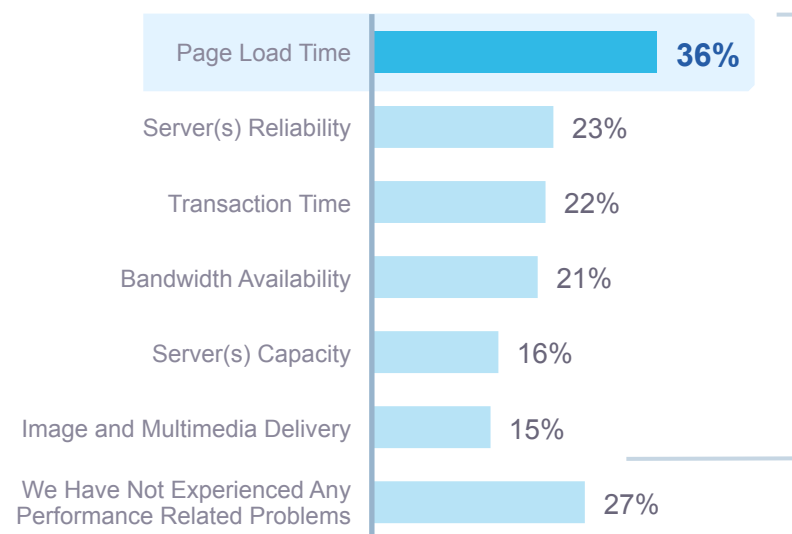
Performance Satisfaction within Specific Site Areas*

Percentage figures represent percent who selected “Somewhat Satisfied” and “Completely Satisfied”



Has Experienced a Performance-Related Issue within the Past 12 Months

n=250

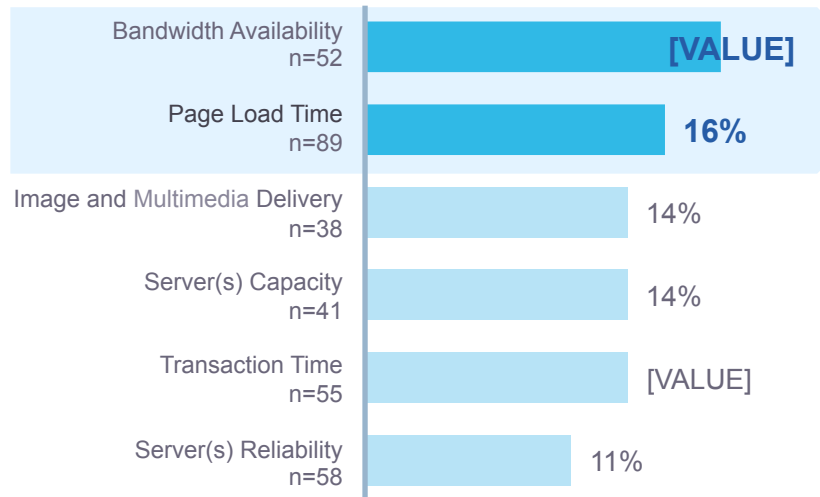


* Figures represent the average satisfaction for both PC/Laptop and Mobile/Tablet users. Average was calculated due to minimal differences between both groups (i.e. +/- 2-3%).
 PC/Laptop n=250, Mobile/Tablet n=239,241

Poor availability and page load times have the greatest negative impact on conversion rates and annual revenue

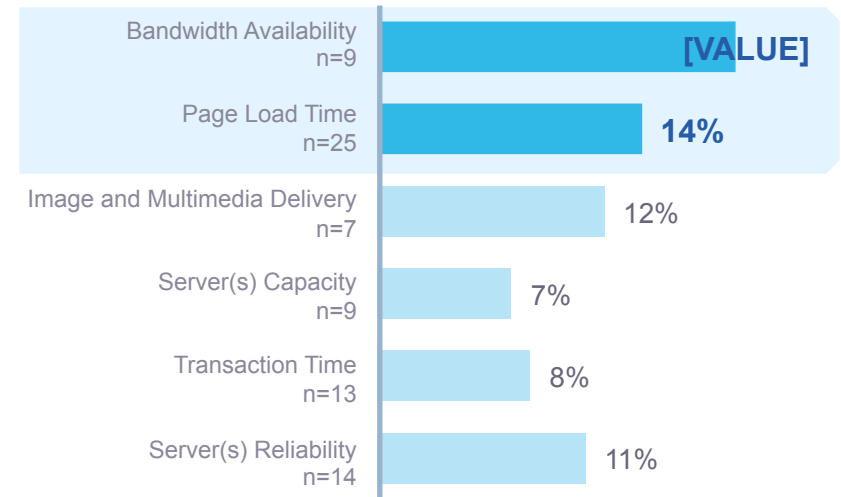
Average Percent of Perceived Conversions Lost in the Past 12 Months Due to Performance-Related Issues*

Asked only to those who experienced an issue



Average Percent of Perceived Annual Revenue Lost Due to Performance-Related Issues

Note A. Low sample sizes, figures are derived using the below calculation** Note B. Respondents whose percentage of annual revenue lost exceeded 100% were removed from analysis



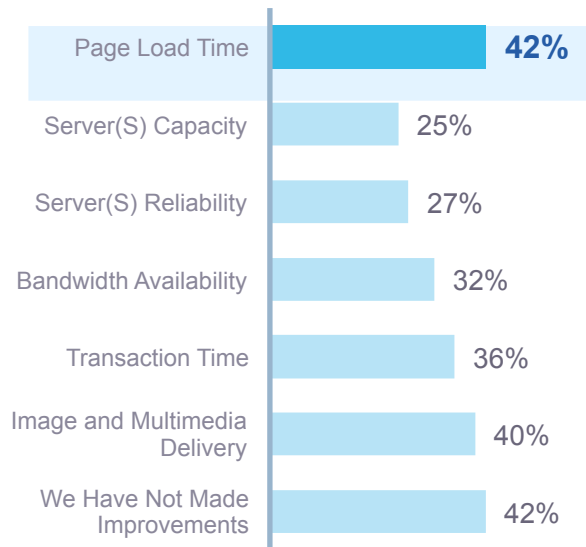
* Figures represent average perceived conversions lost for both PC/Laptop and Mobile/Tablet users. Average was calculated due to minimal differences between both groups (i.e. +/- 2-3%)

** Calculation: $[(\text{Average \% of Conversions Lost}) \times (\text{Average Current Conversion Rate})] \times (\text{Site Traffic}) \times (\text{Average Order Value}) / \text{Annual Revenue Imputed Mean}$

Operators who have improved page load times have experienced increased conversion rates and customer satisfaction

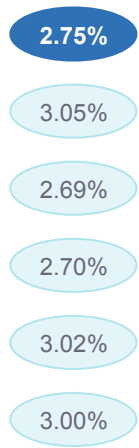
Areas Where Performance-Related Improvements have Occurred in the Past 12 Months

n=250



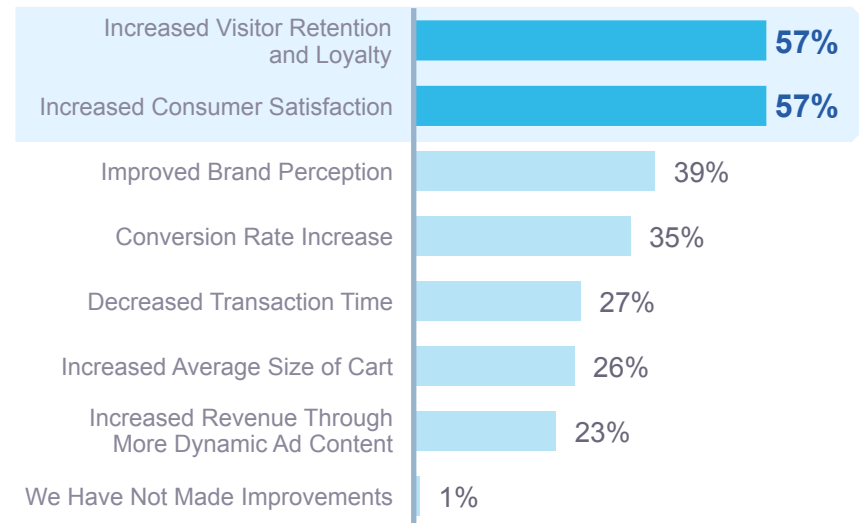
Perceived Impact Improvements have had on Conversion Rates

Figures are based on an imputed mean, each figure represents percentage points, n=63-104



Perceived Economic Benefits of Making Page Load Time Improvements

n=104





Site operators who have aggressive revenue goals in place have experienced highly improved performance

Average Percent Change Between Current and Future Metric Goals

Open-end response

Metric	n=	Unit	Overall Average		Desired Change in Performance
			Current performance	Goal in 24 months	
Cart abandonment**	72	Percent (%)	32.90%	23.67%	-28% ↓
Page load time*	85	Seconds (s)	2.62	1.59	-39% ↓
Bounce rate**	57	Percent (%)	26.09%	16.00%	-39% ↓
Time on site*	96	Minutes	10.19	14.31	40% ↑
Server CPU utilization	84	Percent (%)	49.13%	50.49%	3% ↑
Task completion rate**	55	Percent (%)	80.00%	90.00%	13% ↑
Conversion rate*	96	Percent (%)	20.00%	25.00%	25% ↑
Server uptime**	64	Percent (%)	97.00%	99.00%	2% ↑
Daily traffic count	188	Number (#)	1,329	2,000	50% ↑
Average order value*	82	USD (\$)	\$70.00	\$88.00	26% ↑
Monthly error messages	101	Number (#)	30	10	-67% ↓

 Represents mean average
 Represents median average

* Figure represents average of bottom 75th percentile of distribution due to upper-range outliers
 ** Figure represents average of top 25th percentile of distribution due to bottom-range outliers

E-commerce operators in the personal goods and health industry have some of the most aggressive 24-month goals

Metric	Unit	Segmented Product Offerings									
		Overall		Home, Outdoor, Sports, and Auto		Personal Goods and Health		Business, Tech., Commodities, and Transportation		Entertainment, Lodging, and Other	
		Figures	Change%	Figures	Change %	Figures	Change %	Figures	Change %	Figures	Change %
Cart abandonment**	Percent (%)	32.90%	-28%	31.06%	-26%	29.91%	-37%	32.40%	-31%	32.76%	-32%
Cart abandonment goal**	Percent (%)	23.67%		23.00%		18.74%	22.50%	22.12%			
Page load time*	Seconds (s)	2.62	-39%	3.60	-40%	3.00	-44%	2.53	-42%	2.70	-44%
Page load time goal*	Seconds (s)	1.59		2.15		1.68	1.47	1.50			
Bounce rate**	Percent (%)	26.09%	-39%	24.36%	-39%	24.81%	-34%	27.37%	-44%	20.07%	-39%
Bounce rate goal**	Percent (%)	16.00%		14.79%		16.44%		15.23%		12.33%	
Time on site*	Minutes	10.19	40%	11.88	43%	10.43	49%	10.22	45%	10.16	32%
Time on site goal*	Minutes	14.31		17.00		15.52	14.83	13.40			
Task completion rate**	Percent (%)	80.00%	13%	80.00%	13%	80.00%	13%	71.00%	20%	80.00%	13%
Task completion rate goal**	Percent (%)	90.00%		90.00%		90.00%		85.00%		90.00%	
Server CPU utilization**	Percent (%)	49.13%	3%	50.24%	12%	49.16%	13%	48.19%	2%	48.89%	0%
Server CPU util. goal**	Percent (%)	50.49%		56.48%		55.48%	48.96%	49.11%			
Conversion rate*	Percent (%)	20.00%	25%	16.00%	41%	12.00%	67%	20.00%	55%	12.00%	108%
Conversion rate goal*	Percent (%)	25.00%		22.50%		20.00%		31.00%		25.00%	
Server uptime**	Percent (%)	97.00%	2%	95.00%	4%	97.00%	2%	97.50%	2%	98.00%	1%
Server uptime goal**	Percent (%)	99.00%		99.00%		99.00%		99.00%		99.00%	
Daily traffic count	Number (#)	1329.5	50%	2000	75%	1100	82%	1200	67%	1500	33%
Daily traffic count goal	Number (#)	2000		3500		2000	2000	2000			
Average order value*	USD (\$)	\$70.00	26%	\$60.00	21%	\$72.50	14%	\$72.50	24%	\$75.00	7%
Average order value goal*	USD (\$)	\$88.00		\$72.50		\$82.50		\$90.00		\$80.00	
Monthly error messages	Number (#)	30.00	-67%	36.00	-44%	30.00	-67%	30.00	-50%	45.00	-33%
Monthly error msgs. goal	Number (#)	10.00		20.00		10.00		15.00		30.00	

Represents mean average
 Represents median average
 Most aggressive goal in class

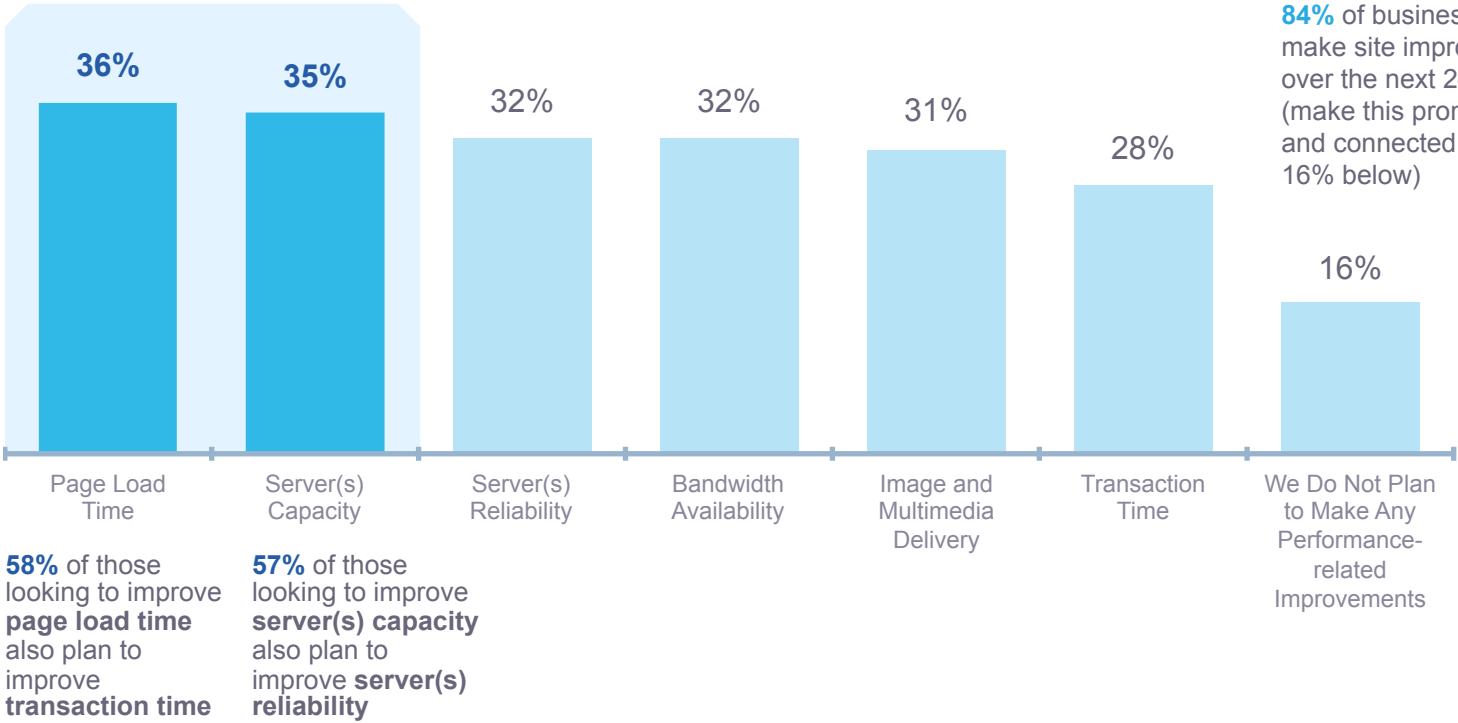
* Figure represents average of bottom 75th percentile of distribution due to upper-range outlier

** Figure represents average of top 25th percentile of distribution due to bottom-range outliers



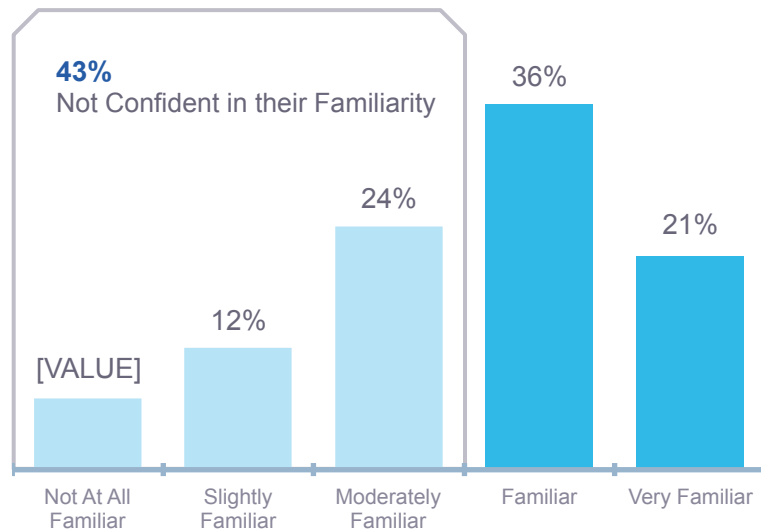
In the next 24 months, 84 percent of website operators will make improvements to their website

Website Areas to be Improved Over the Next 24 Months
n=250

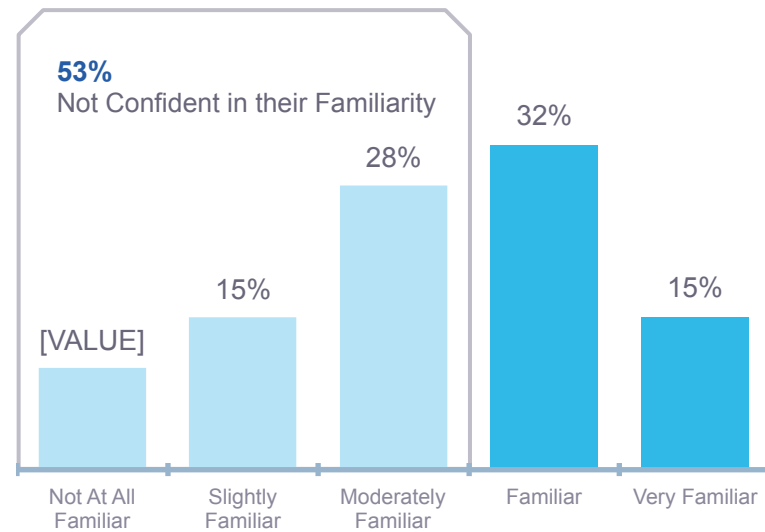


Of website operators surveyed, 43 percent say they are generally unfamiliar with load balancing tools. Fifty-three percent say they are relatively unfamiliar with a content delivery network (CDN)

Familiarity with Load Balancing
Overall sample, n=250

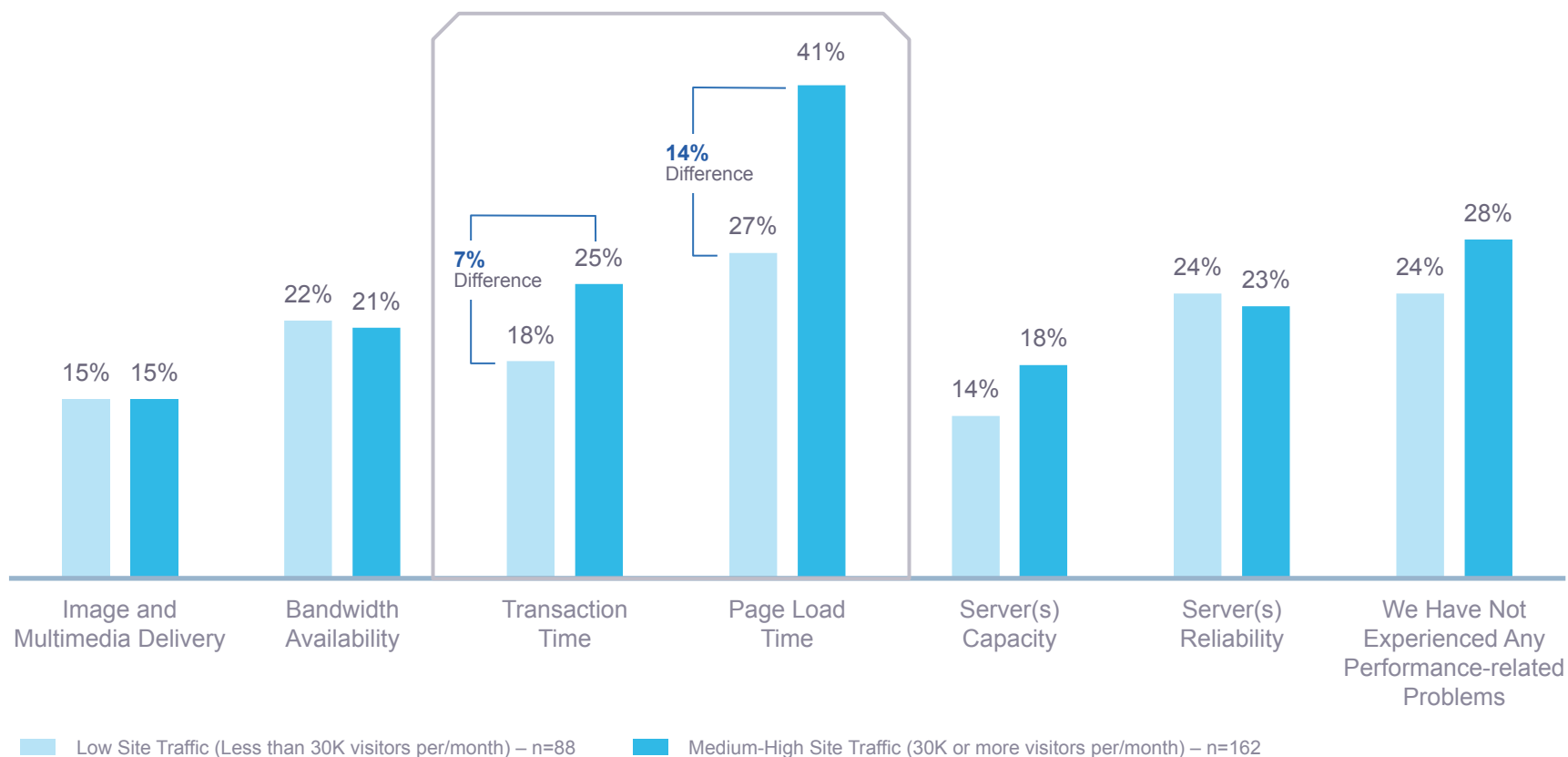


Familiarity with a Content Delivery Network (CDN)
Overall sample, n=250



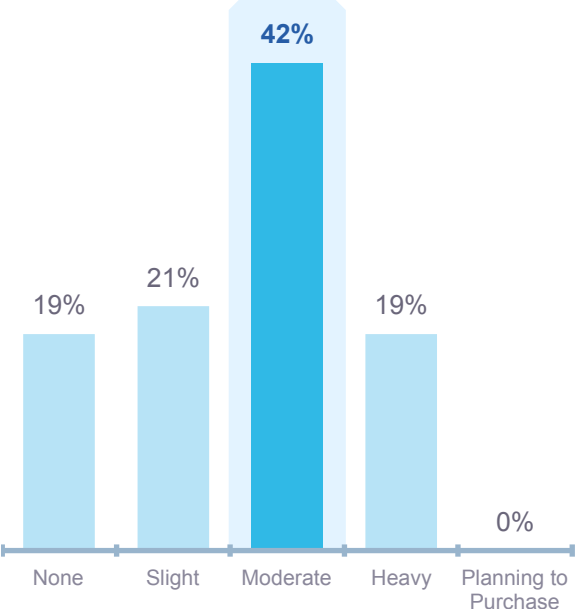
Low-traffic site operators have experienced issues with transaction times (18 percent) and page load times (27 percent)

Low vs. Medium-High Traffic Sites That Have Experienced a Performance-Related Issue In the Past 12 Months

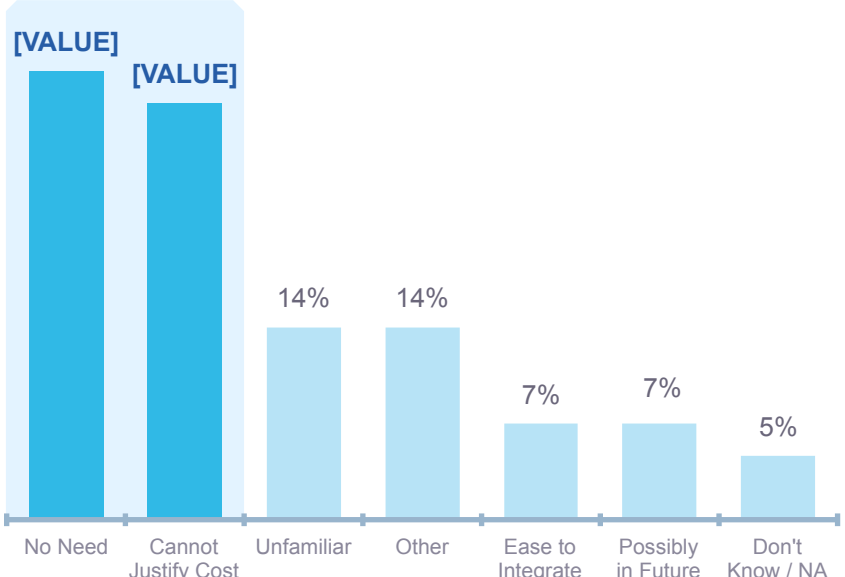


Despite issues with high page load times, operators say they have “no need” or “cannot justify” the cost for load balancing

Load Balancing:
Degree of Purchase Consideration
Asked to those not currently using load balancing, n=86

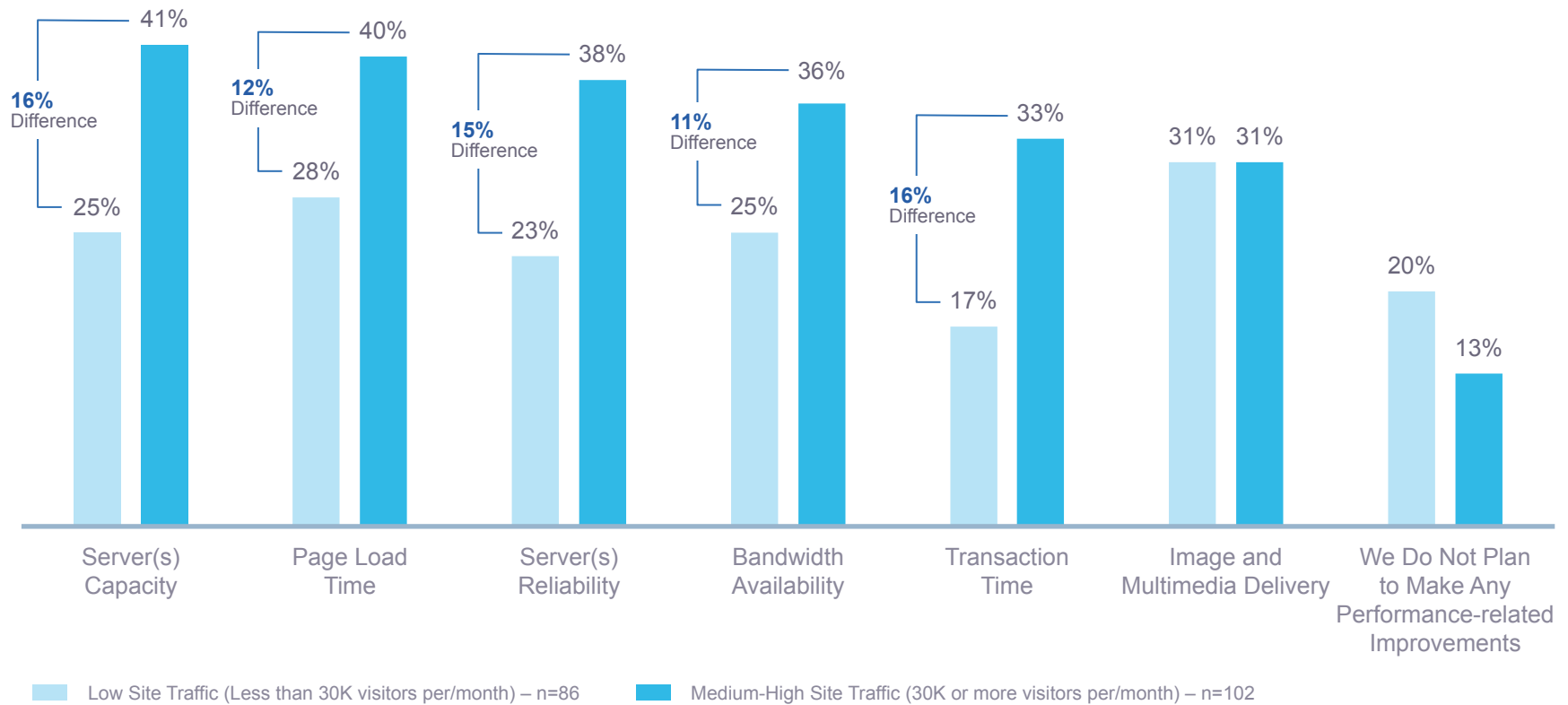


Load Balancing:
Reasons Operators Don't Leverage
Asked to those not planning to purchase, n=86



However, operators of low-traffic sites do not prioritize performance improvements unlike high-traffic site operators

Website Area Improvements to Be Made In the Next 24 Months by Low-Traffic and High Traffic Websites



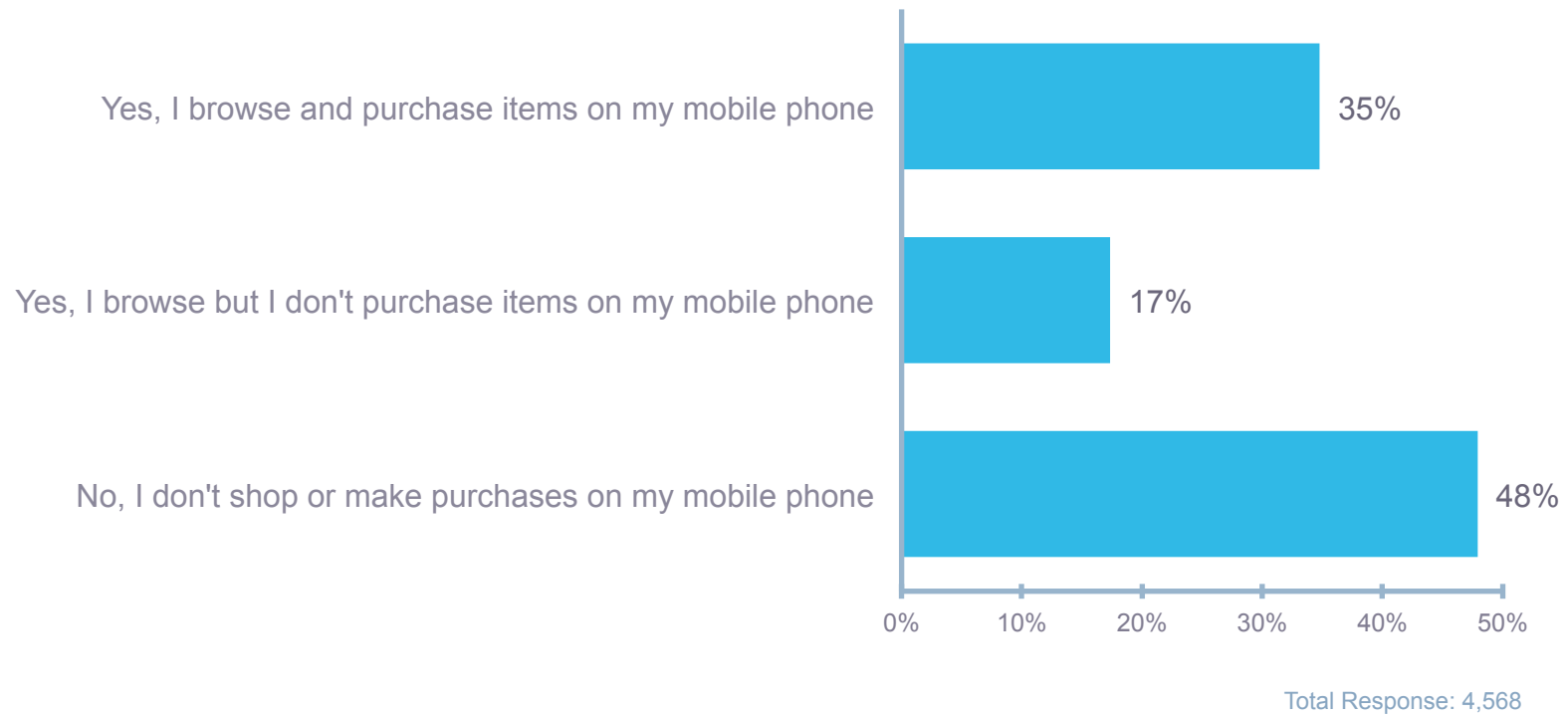
03

Appendix

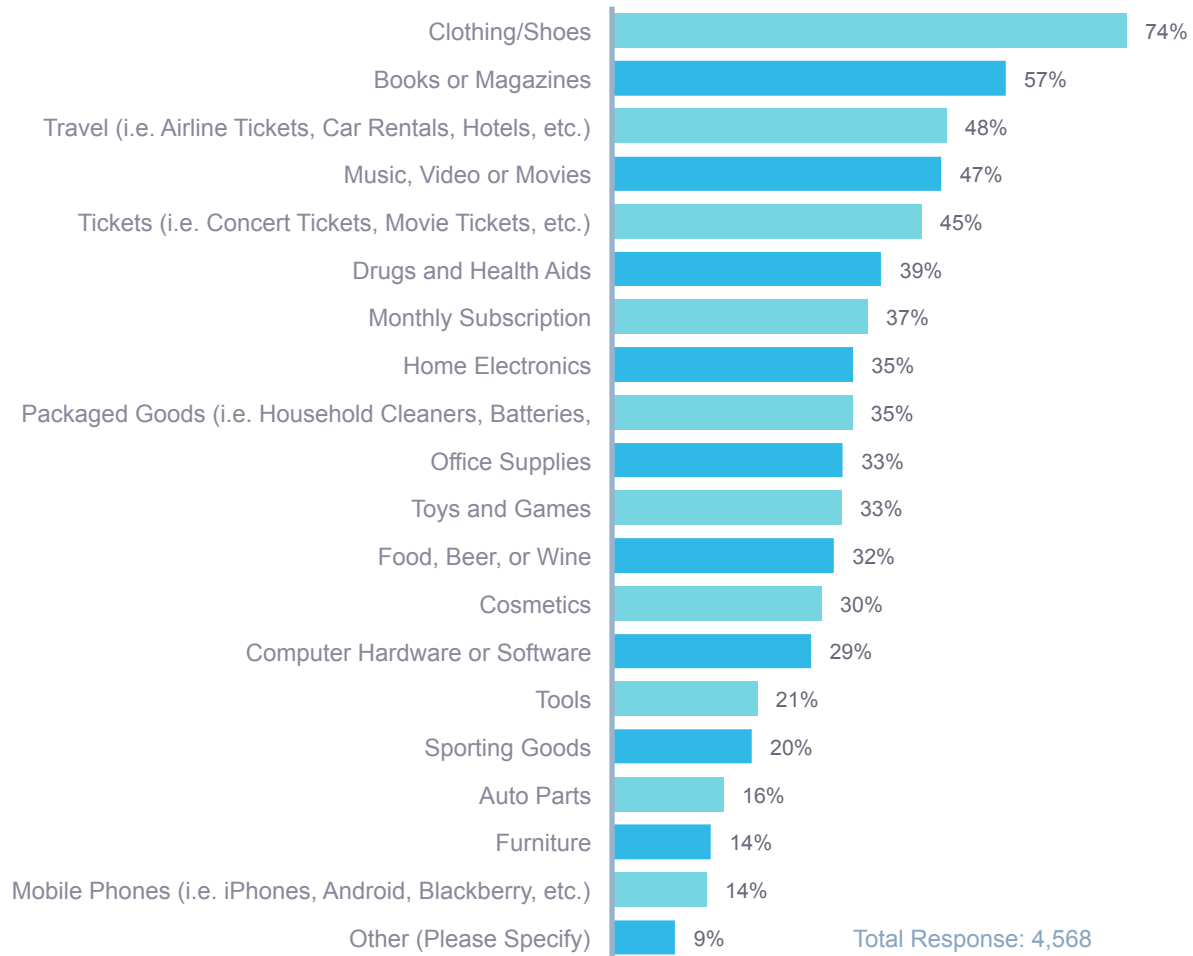
Methodology

- The Incapsula e-commerce survey was conducted from October 1, 2015, to October 15, 2015, by Cicero Group.
- A total of 250 surveys were completed: 28 were from Canada and 222 from the United States.
- Cicero Group utilized a panel company that targeted e-commerce decision makers.
- The data was analyzed using statistical software to determine significance, trends, and patterns to generate a final report.
- Several screening questions were posed to capture relevant data. Respondents had to meet the following criteria:
 - Headquartered in the U.S. or Canada
 - Work in IT, e-commerce, or operations
 - More than 20% of sales must come through e-commerce
 - Company websites had more than 5,000 website visits each month
 - Primary or partner in final e-commerce business decisions

Do you shop on your mobile phone?



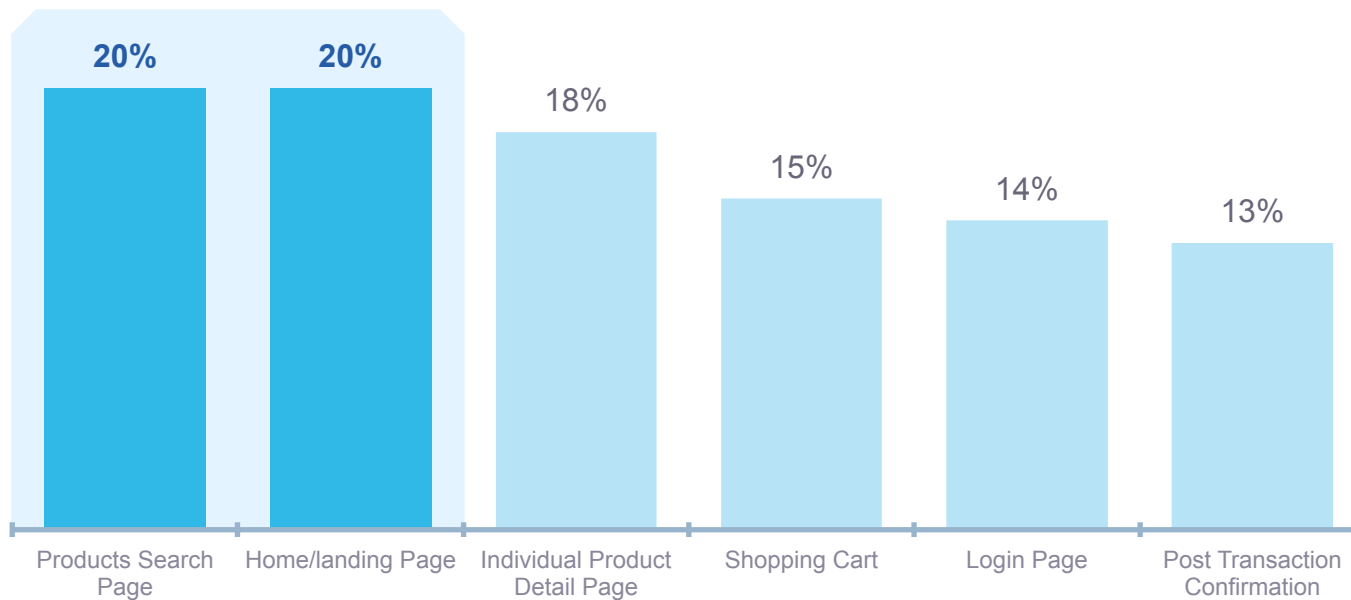
Please select which services and/or products you have purchased in the past six months. Select all that apply



Web operators prioritize product search and landing pages over shopping cart and post-transaction confirmation

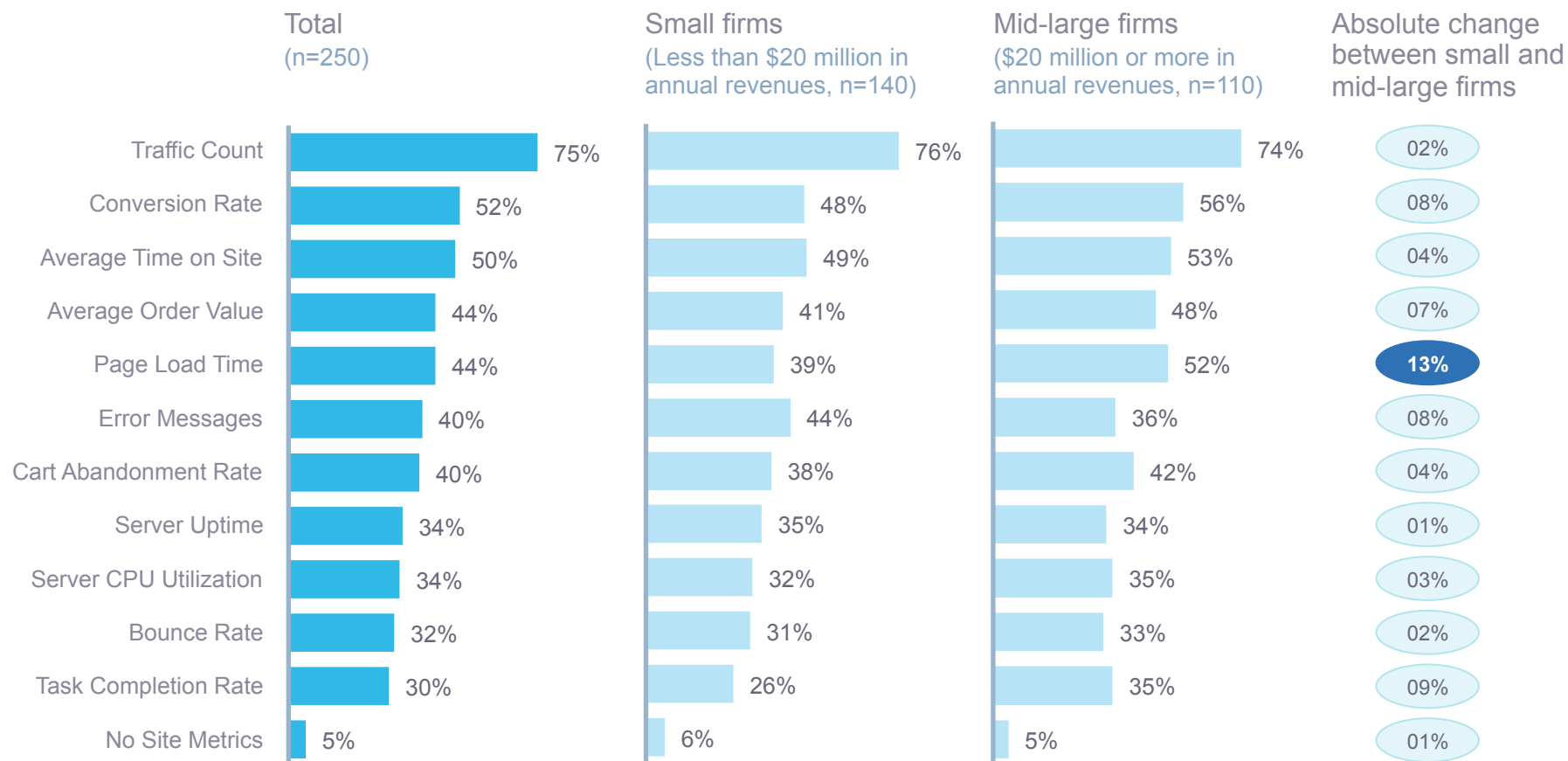
Most Important Areas of a Website Related to Optimizing Performance

Respondents allocated 100 percentage points across each area, with the most important area receiving the most points, n=250



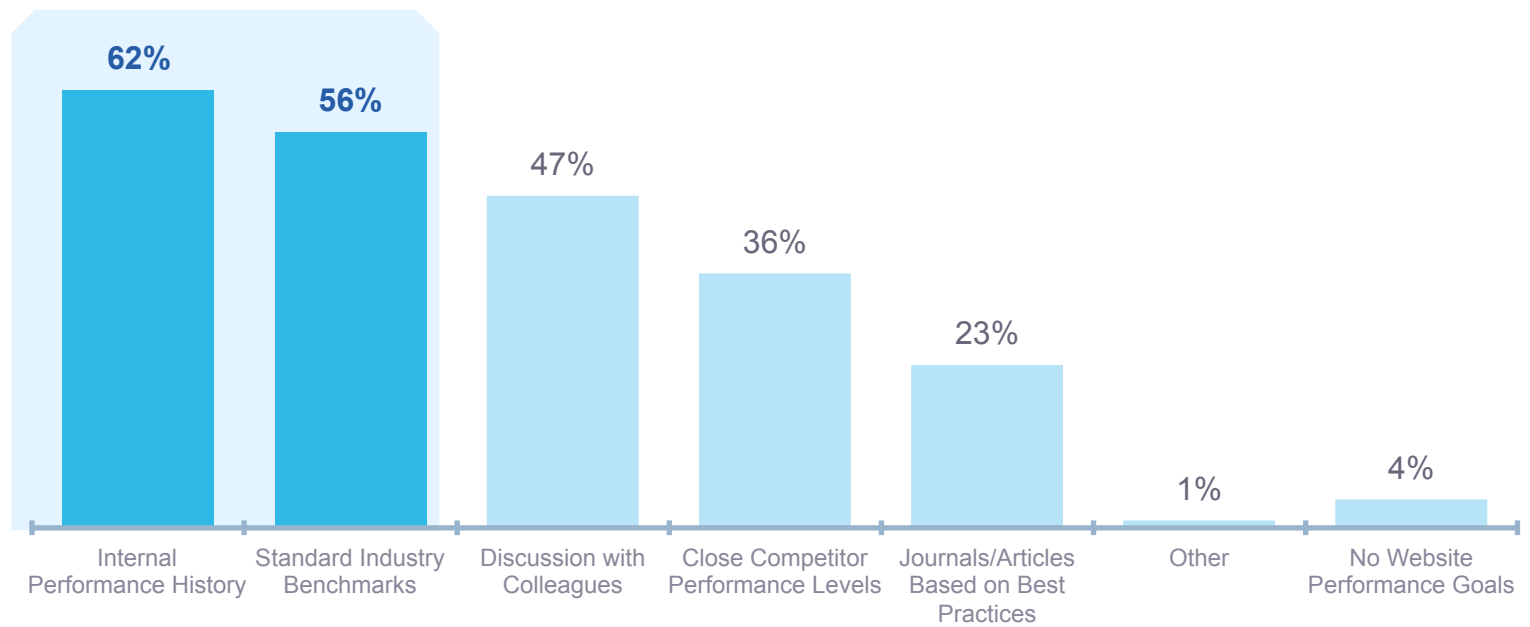
On average, larger firms track more site metrics than smaller firms — with the greatest gap being in tracking page load times

Performance-Related Metrics Being Tracked



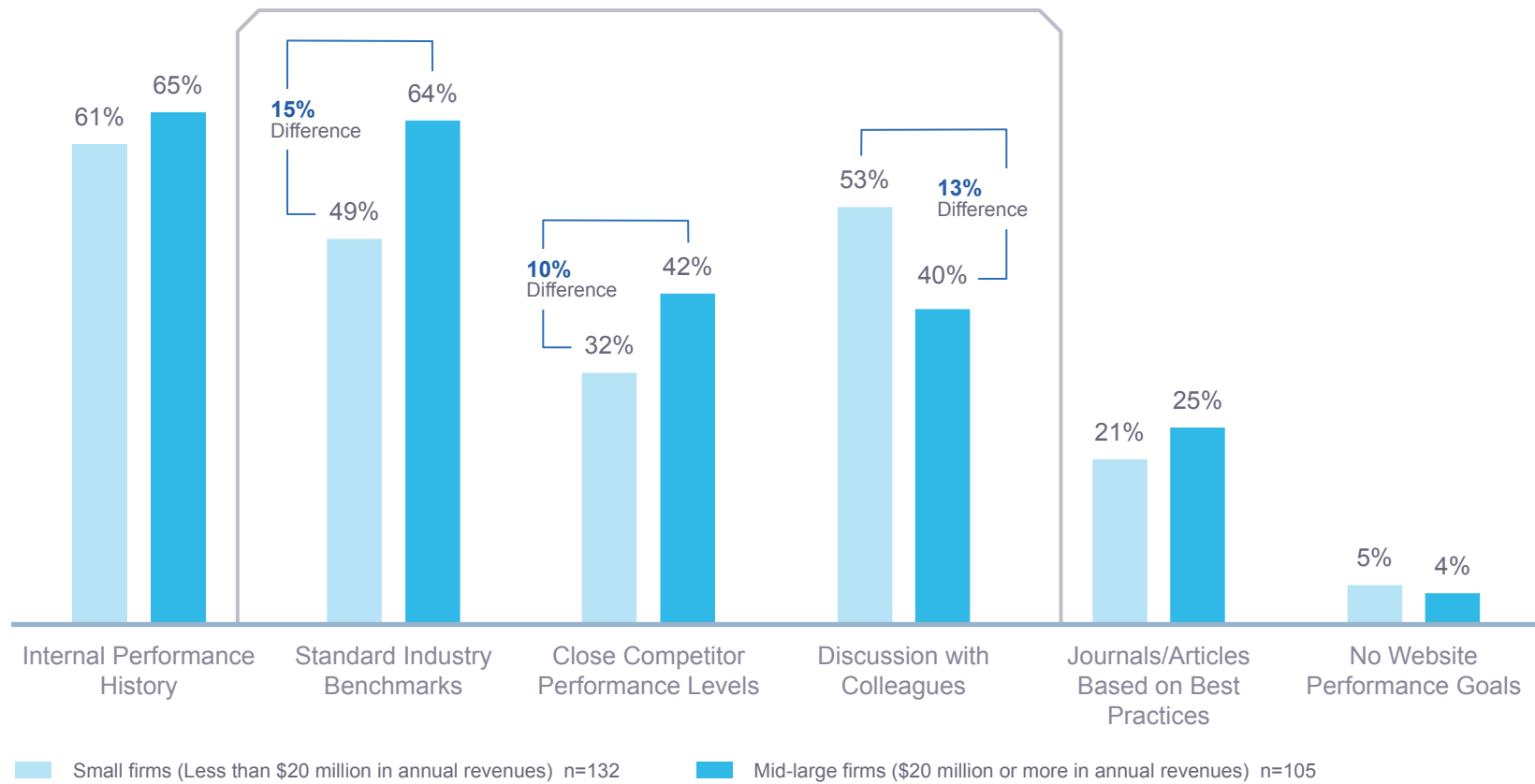
Operators set performance-related goals using historical site performance data and standard industry benchmarks

Primary Sources Used to Help Establish Performance Goals
n=237



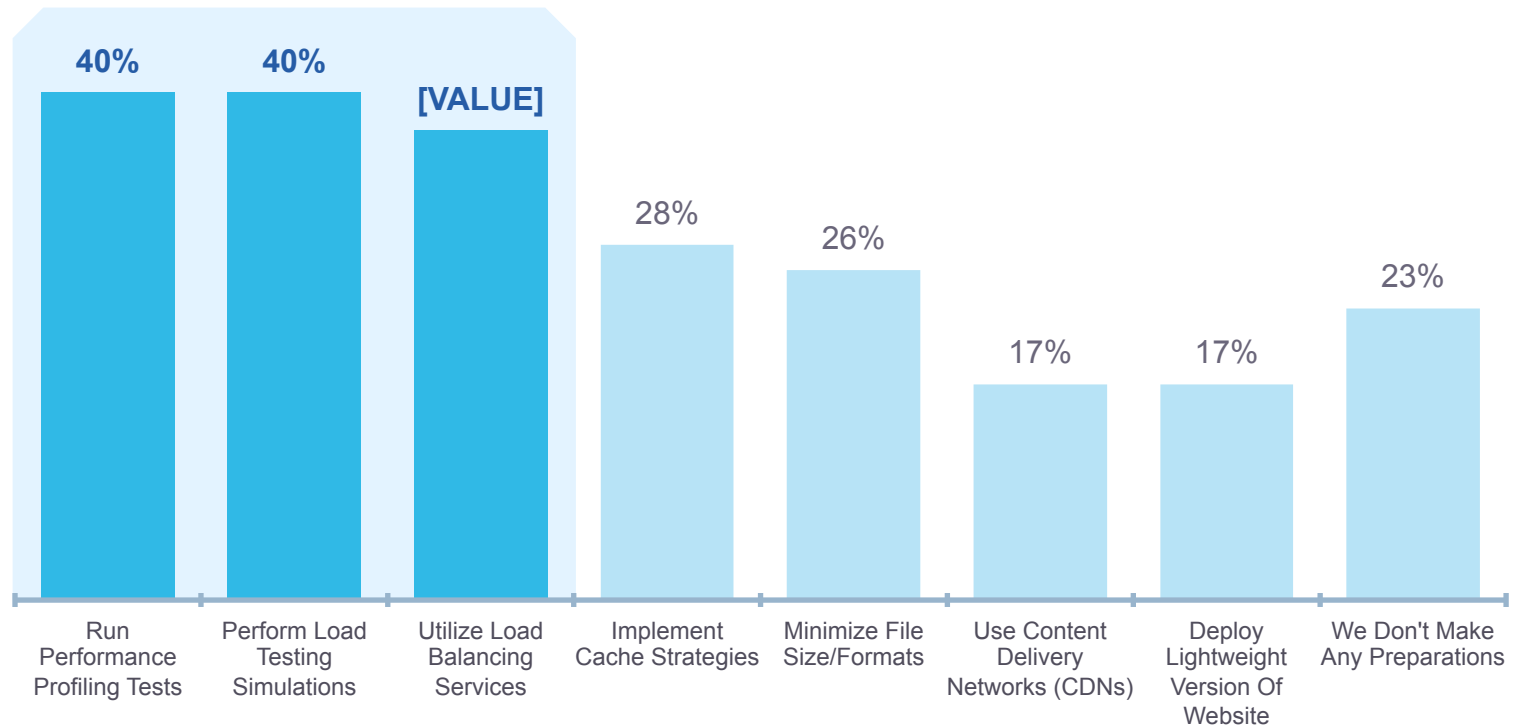
As revenue increases, competitor and industry benchmarks are more important than company revenue objectives

Primary Sources Used to Help Establish Performance Goals: Segmented by Company Size



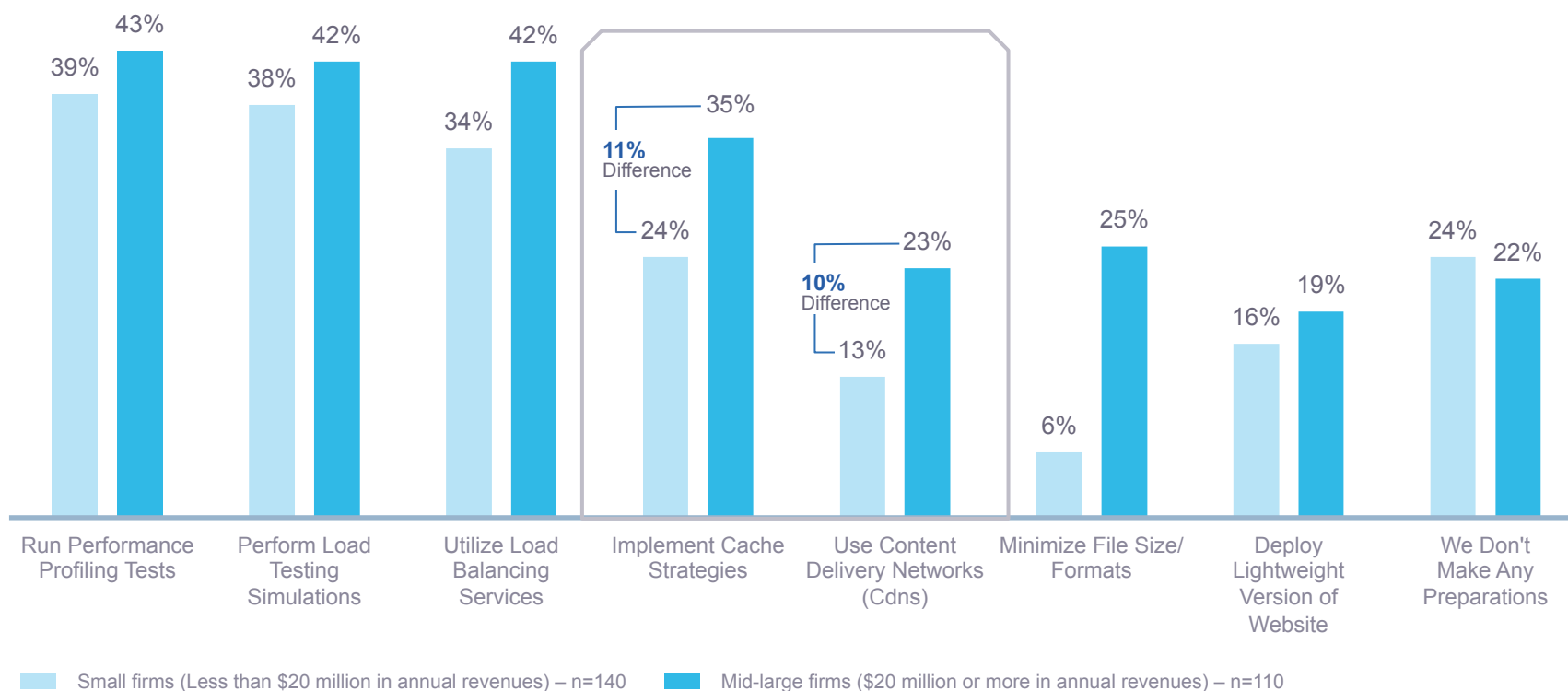
Operators perform profiling tests, load testing simulations, and utilize load balancing services prior to periods of high site traffic

Preparations Made Prior to a High-Traffic Period (e.g. Labor Day, Cyber Monday, etc.)
n=250



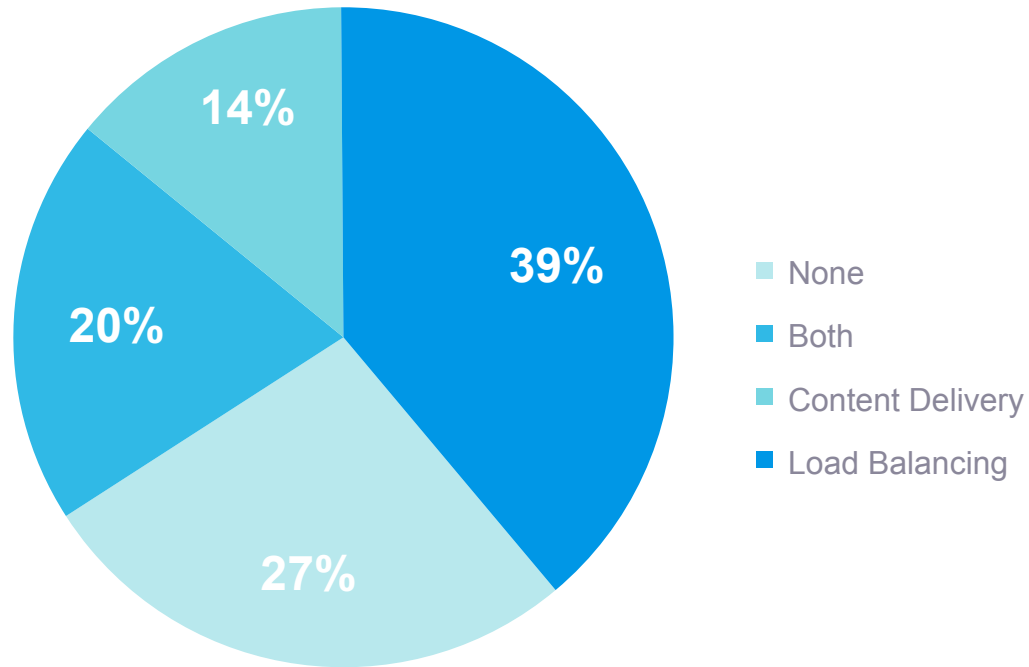
Mid- to large-size firms are more likely to use a broader array of strategies than small firms before peak traffic periods

Preparations Made Prior to a High-Traffic Period (e.g. Labor Day, Cyber Monday, etc.):
Segmented by Company Size



Nearly 40 percent of operators use only a load balancing tool and 14 percent use only a content delivery network (CDN) tool

Performance Optimization Tools Currently Leveraged* - n=250



*Respondents who selected "Don't Know" were removed from analysis.

About Us

About Imperva Incapsula

Imperva Incapsula is a cloud-based application delivery service that makes websites safer, faster, and more reliable. Using Incapsula, organizations large and small can protect their businesses with enterprise-grade web application security, DDoS mitigation, performance optimization, and load balancing.

Try a Two-Week Free Trial

- » No software to download or equipment to hook up
- » Getting started is easy and requires only a DNS change
- » Includes load-balancing and web application acceleration

Get Started Today

Questions? Contact Us.