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August 17, 2009

eCommerce Web Site Performance Today

An Updated Look At Consumer Reaction To A
Poor Online Shopping Experience

A commissioned study conducted by Forrester Consulting on behalf of
Akamai Technologies, Inc.

FORRESTER®



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Executive Summary

Since the rise of online shopping in the late 1990s, we have seen many evolutions in the underlying technology infrastructure and in consumer expectations. Elements fueling these evolutions include the rise of broadband access in homes and businesses, improvements to the usability of sites and Web navigation such as search, the number of leading brands and retailers selling online, as well as improvements to the underlying technology behind sites.

In the summer of 2009, Akamai Technologies commissioned Forrester Consulting to help understand how customer expectations around online shopping have evolved and what the implications are for retailers that fail to meet those demands. In 2006, Akamai commissioned a study to address similar questions; this is a follow-up study to examine changes in consumer expectations.¹

Key Findings

Based on this study of 1,048 online shoppers, Forrester's study yielded these key findings:

- **Consumers become impatient when pages take longer than 2 seconds to load.** Forty-seven percent of consumers expect to wait no more than 2 seconds for a Web page to render. Online shopper loyalty is contingent upon quick page loading, especially for high-spending shoppers. Fifty-two percent of online shoppers said that quick page loading is important to their site loyalty. Sixty-one percent of online shoppers who spend more than \$1,500 online per year insist on pages loading quickly.
- **Poor site performance leads to shopper dissatisfaction and site abandonment more than ever before.** Twenty-three percent of dissatisfied online shoppers attributed their dissatisfaction to the Web site being too slow or taking too long to render. Another 17% reported dissatisfaction due to site crashes or error messages they received. One-third of shoppers who abandoned a recent shopping session were dissatisfied with a retail site's performance.
- **The consequences for online retailers with underperforming sites are lost sales, and the impact reaches beyond the Web.** Seventy-nine percent of online shoppers who experience a dissatisfying visit are likely to no longer buy from that site. Also, 46% of dissatisfied online shoppers are more likely to develop a negative perception of the company, and 44% will tell their friends and family about the experience. With 87% of consumers shopping in both online and retail channels, the impact of a bad online experience reaches beyond the Web.
- **Mobile is a nascent but emerging shopping channel, and performance is key to consumer adoption.** Sixteen percent of consumers have shopped via mobile phones or smartphones, but 27% of them report that it is dissatisfying due to the mobile shopping experience being too slow. One-third of consumers report wanting to shop via their smartphones in the future, with 5% indicating that this will be an important aspect of their loyalty to online retailers.

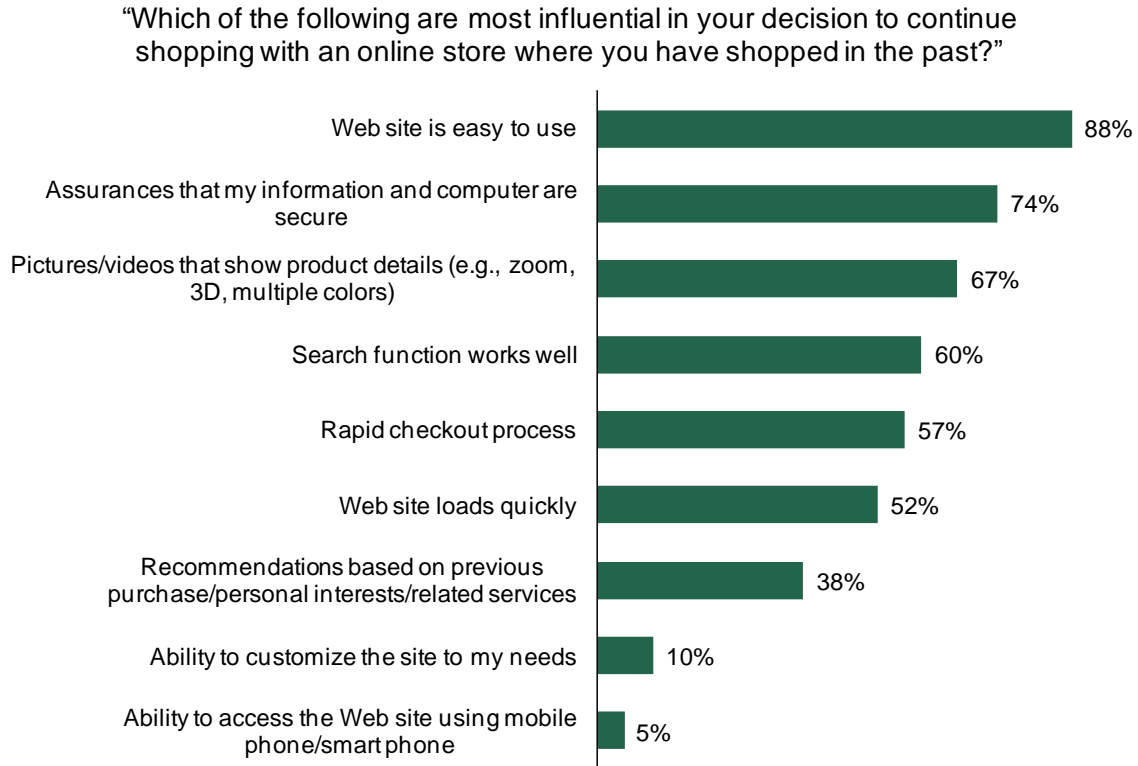
It is clear that there are serious consequences for an online retailer with an underperforming site. However, by taking steps to improve site features and performance, online retailers can look to increase overall consumer satisfaction and ultimately increase sales. Forrester recommends that online retailers test their Web site performance, fix easy site features and performance issues before attempting to address larger problems, as well as improve the multichannel experience by addressing content and functionality issues on the retail site.

The State Of Consumer Online Shopping Expectations

Online shopping has become an everyday activity for many. And as online shopping has woven its way into consumers' habits and lifestyles, their expectations have increased. Through the 2006 study, Forrester determined that a simple and easy-to-use navigational scheme is key to online shoppers' satisfaction, which is still the case today (see Figure 1). Forrester found that:

- **Ease of use is a key factor in site loyalty.** Eighty-eight percent of online shoppers indicated that they are likely to return to a retailer's site if it is easy to use, particularly during the registration, login, and checkout processes. The need for ease of use has increased from the previous study, when only 65% of shoppers found this important.
- **Assurances regarding the security of personal financial information are also important.** When determining if they will continue shopping at an online store, 74% of online shoppers want assurances that the information they enter into the site is secure. This has also increased from the 2006 study, when only 62% of shoppers said that information security was an important factor.
- **Site features and overall site performance strongly affect online shopper loyalty.** Fifty-seven percent of online shoppers insist on a rapid checkout process, up nearly 10% from three years ago. Fifty-two percent stated that quick site loading is critical to their loyalty, up 12% from our last study. Online shoppers also look for rich product content, with 67% of online consumers finding this important, while 60% of consumers demand an effective site search.

Figure 1: Most Influential Factors In Online Shoppers' Decision To Continue Shopping At A Site Where They Have Shopped In The Past



Base: 1,048 US online consumers

Source: A commissioned study conducted by Forrester Consulting on behalf of Akamai Technologies, July 2009

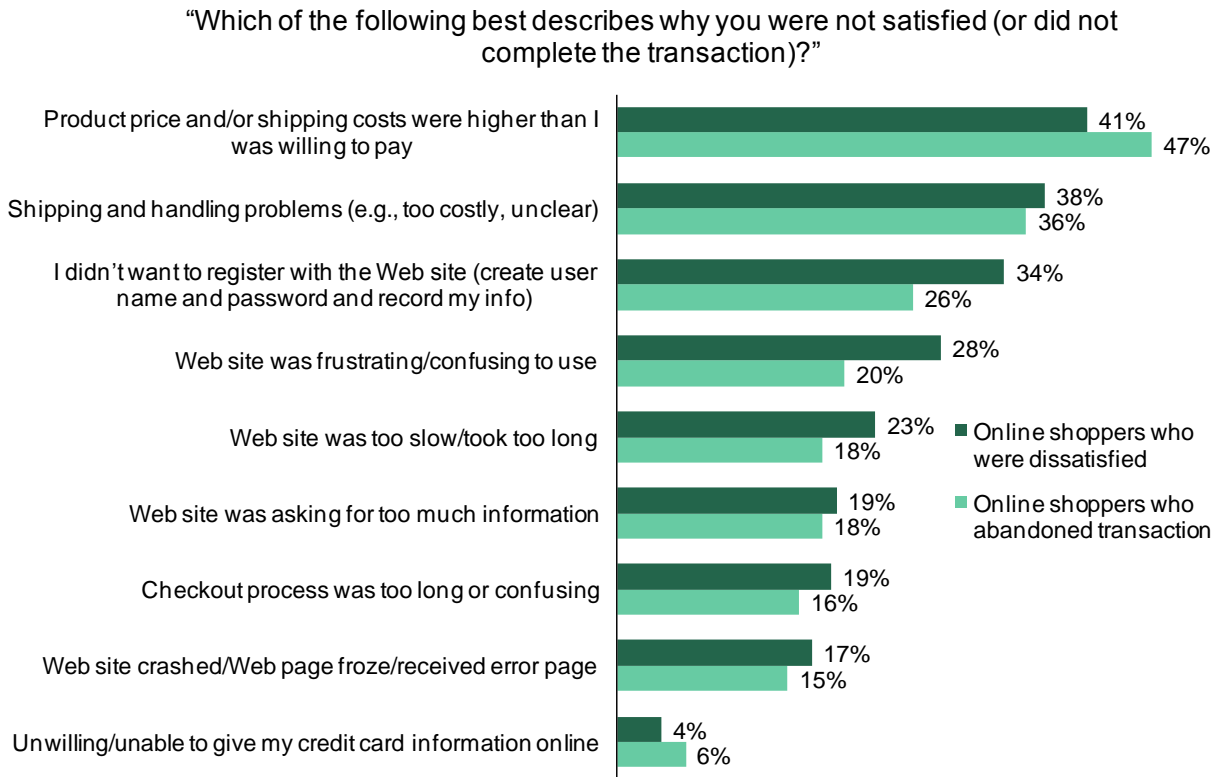
However, consumers continue to be frustrated by online shopping sites' performance. A variety of factors relating to site performance affect an online shopper's experience (see Figure 2). Forrester found that poor site performance caused:

- **Online shoppers to not complete a purchase.** Consumers who were intending to make a purchase on a site but who did not complete the transaction report frustration with overall site performance. Twenty percent report that the sites were confusing to use, up 5% from the 2006 study. Eighteen percent of today's and 2006's online shoppers found that the site was too slow. Fifteen percent reported that the sites crashed or froze, preventing them from completing their transaction; this is the same percentage that online shoppers reported in 2006.
- **Online shoppers to be dissatisfied with their online shopping experience.** Twenty-eight percent of today's shoppers had an unsatisfactory online shopping experience due to a confusing site. This is down from a reported 31% in 2006. For 23%, the Web site performance was the reason for their overall sense of dissatisfaction with the online shopping experience, compared to 33% of online shoppers in 2006.

Consumers reported less dissatisfaction with their online shopping experience than they did in 2006. However, more respondents are willing to, and do, abandon purchases than ever before.

Sixty-five percent of consumers who intend to make purchases but do not abandon the site after the checkout process has begun, compared with only 47% from the previous study (see Figure 3). These represent opportunities for retailers to improve customer satisfaction with their online shopping sites and decrease abandonment.

Figure 2: Site Performance And Stability Are Key Issues In Consumers Completing Their Transaction

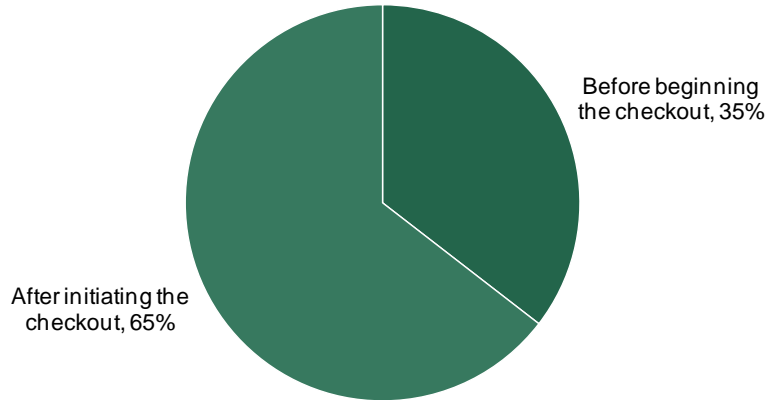


Base: 1,048 US online consumers

Source: A commissioned study conducted by Forrester Consulting on behalf of Akamai Technologies, July 2009

Figure 3: A Majority Of Consumers Abandon Intended Purchases In The Checkout Process

“Thinking of the last time you visited an online store where you intended to buy a product but did not finish the online purchase, at what point did you leave the site?”



Base: 933 US online consumers who have abandoned a purchase

Source: A commissioned study conducted by Forrester Consulting on behalf of Akamai Technologies, July 2009

Web Page Rendering Should Be Kept Under 2 Seconds

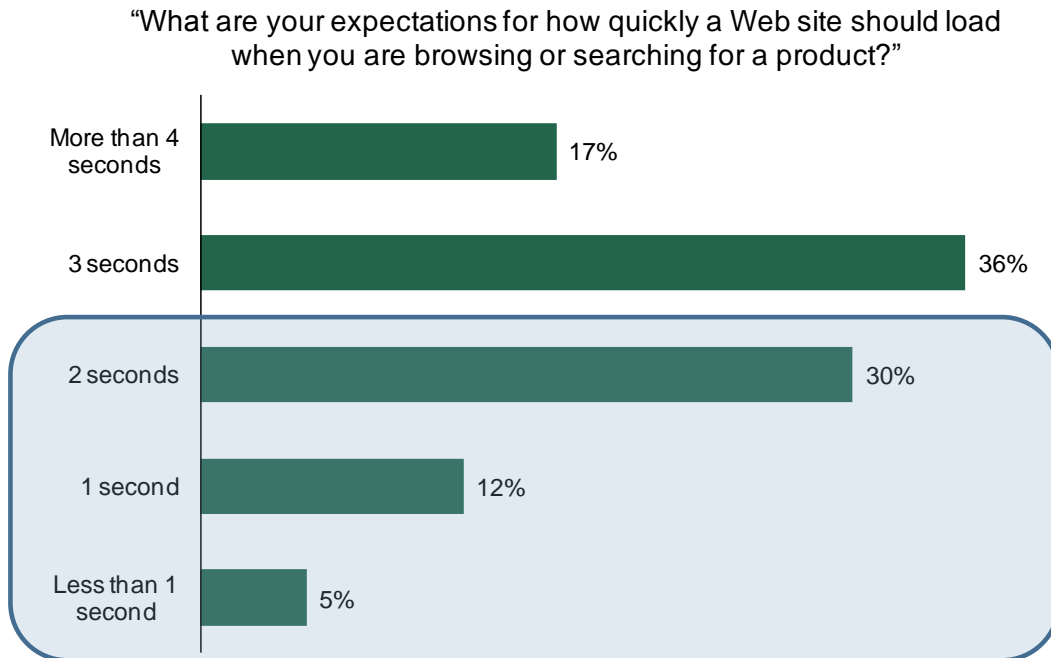
If site performance is a problem to address, what do consumers expect? Online shopping sites need to consider a consumer's expectation when designing and optimizing their sites. Based on recent survey data, Forrester found that:

- **Retailers should keep page rendering to under 2 seconds.** Forty-seven percent of consumers expect a Web page to load in 2 seconds or less (see Figure 4). This represents a significant evolution in consumer expectation from the 2006 study, which showed the majority of customer expectations at 4 seconds or fewer. In fact, Forrester found that 40% of consumers will wait no more than 3 seconds for a Web page to render before abandoning the site (see Figure 5).
- **Better Internet connections mean higher customer expectations.** A major factor in the evolution of customer expectations for Web site performance is the growing ubiquity of broadband access among US consumers. Ninety-one percent of US online consumers surveyed now have broadband at home (cable or digital subscriber line [DSL]), while nearly half have broadband access at work or school (see Figure 6). In 2006, Forrester's recommendation was for retail sites to target 4 seconds or fewer, reflective of the lower broadband access rates. Retail sites must now compete with these higher expectations.
- **Customer loyalty is closely tied to how quickly a Web site loads.** Online shopper loyalty is contingent upon quick page loading, especially for high-spending shoppers. Fifty-two percent of online shoppers stated that quick page loading is important to their site

loyalty. Sixty-one percent of online shoppers who spend more than \$1,500 online per year insist on pages loading quickly (see Figure 7).

- **Customers get distracted when made to wait for a page to load.** When consumers are made to wait, they can become restless. Fourteen percent will begin shopping at another site, and 23% will stop shopping or walk away from their computer. Thirty-nine percent will begin another task on their computer and risk getting distracted from their shopping (see Figure 8). A restless customer can become a lost sale to a retail site.

Figure 4: Consumer Expectations Of Web Page Loading Times

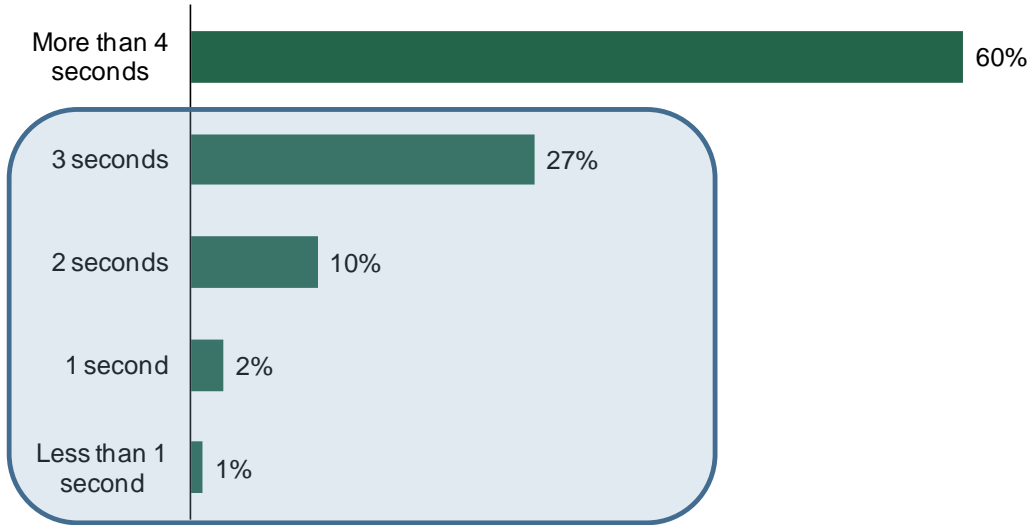


Base: 1,048 US online consumers

Source: A commissioned study conducted by Forrester Consulting on behalf of Akamai Technologies, July 2009

Figure 5: Forty Percent Of Consumers Will Abandon A Page If Made To Wait

Typically, how long are you willing to wait for a single web page to load before leaving the website?

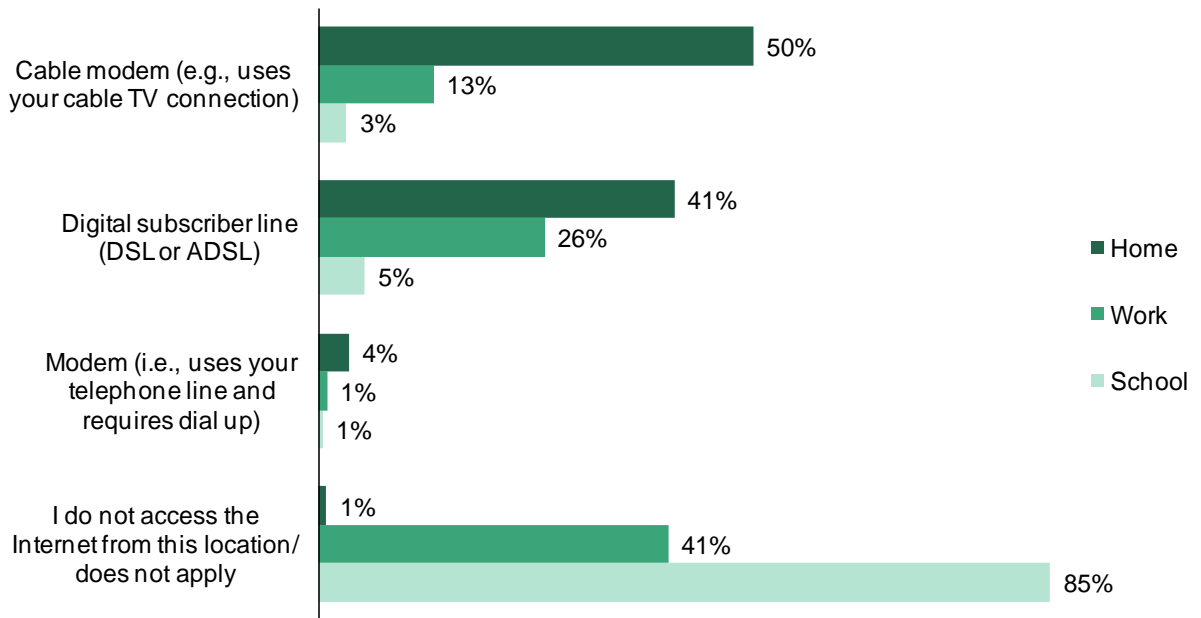


Base: 1,048 US online consumers

Source: A commissioned study conducted by Forrester Consulting on behalf of Akamai Technologies, July 2009

Figure 6: Broadband Access Is Now Widespread Among US Online Consumers

“For each of the below places where you shop or research products online, please select how you connect to the Internet.”



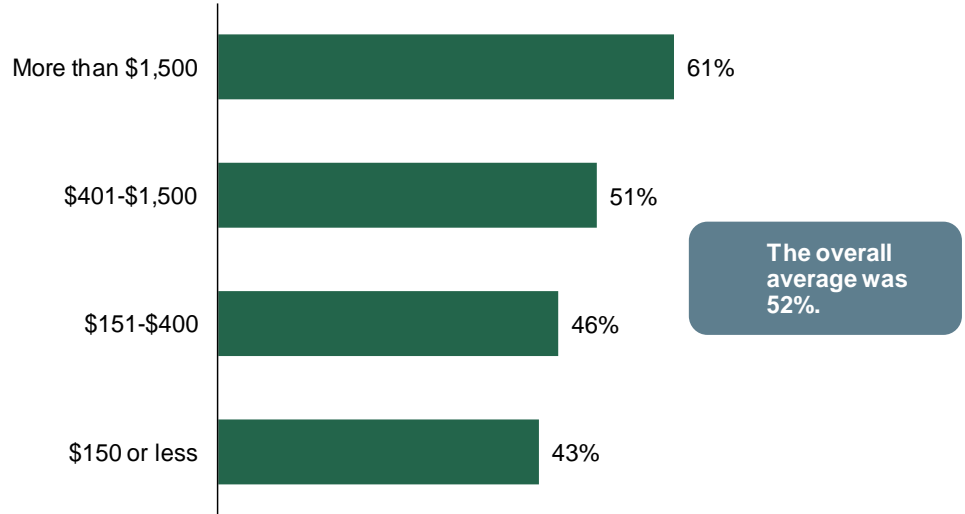
Base: 1,048 US online consumers

Source: A commissioned study conducted by Forrester Consulting on behalf of Akamai Technologies, July 2009

Figure 7: Online Shopper Loyalty Is Contingent Upon Quick Page Loading, Especially For High Spenders

“Which of the following are most influential in your decision to continue shopping with an online store where you have shopped in the past?”

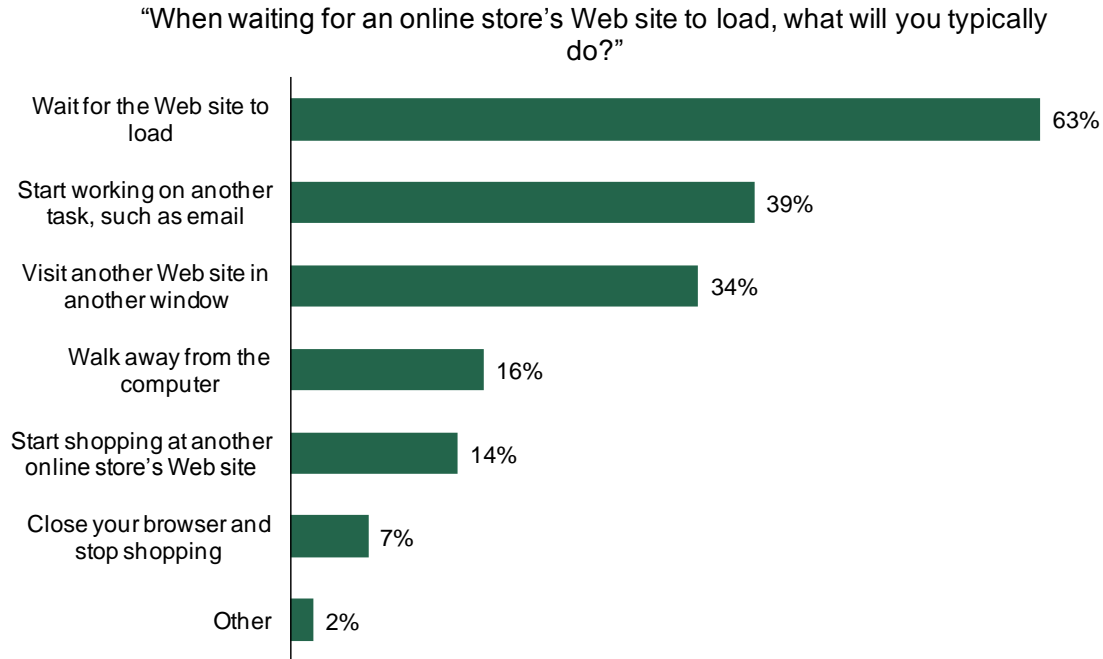
(Responses shown for Web site loads quickly)



Base: 1,048 US online consumers

Source: A commissioned study conducted by Forrester Consulting on behalf of Akamai Technologies, July 2009

Figure 8: Many Customers Will Get Distracted And Begin To Multitask When Confronted With A Slow Site



Base: 1,048 US online consumers

Source: A commissioned study conducted by Forrester Consulting on behalf of Akamai Technologies, July 2009

Retailers Take Risks With Underperforming Sites

Our study shows that shoppers are frustrated and dissatisfied with retail Web sites for a number of reasons. The majority of these unsatisfied online shoppers indicate that they will not hesitate to take their business elsewhere. Forrester found that:

- **Customer frustration leads to lost sales.** Seventy-nine percent of dissatisfied online shoppers indicated that they are less likely to buy from the site again. This is up by 17% from the 2006 study. Sixty-four percent would simply purchase from another online store, which is up 16% from the 2006 study.
- **The overall brand or image of the company will also suffer.** When faced with a dissatisfying shopping experience, 46% of online shoppers are more likely to develop a more negative perception of the company, and 44% would actively tell their friends and family about the bad experience (see Figure 9).
- **The impact of a bad experience goes beyond Web sales.** It is easy for the focus to be on direct online sales when factoring in the impact of Web site performance, but a growing consumer behavior is to research and shop online and complete purchases in stores or in other channels. In fact, 87% of consumers surveyed report having researched products online and then purchasing them in retail store locations. Fifty-one percent have ordered

the item online and then picked it up in a store (see Figure 10). This means that a retail site's poor performance could result in lost in-store sales.

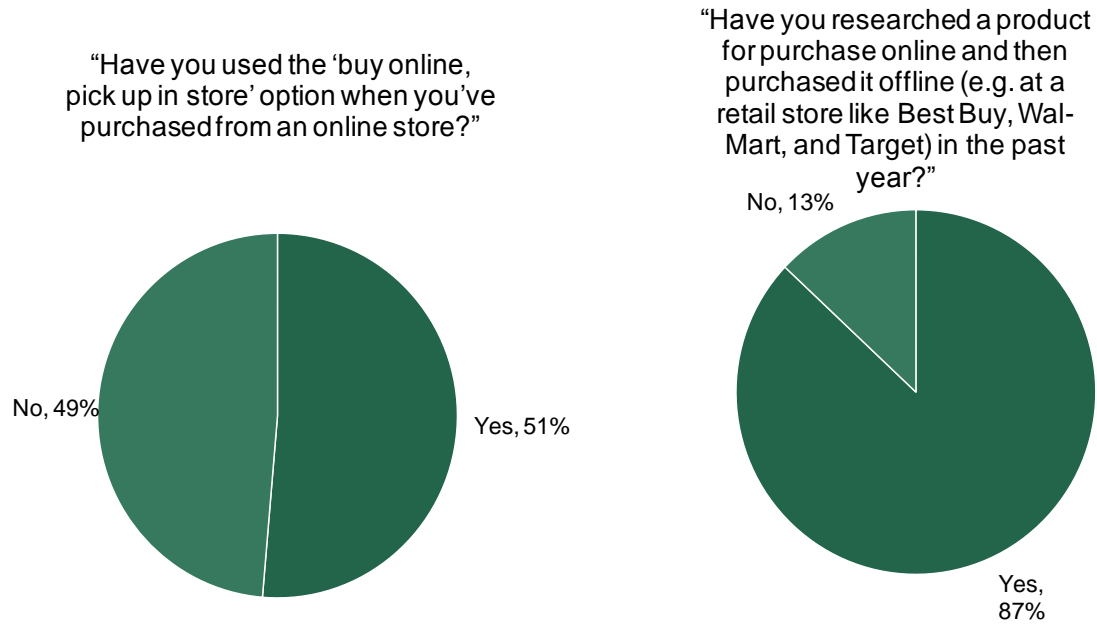
Figure 9: The Consequences Of Online Shopper Dissatisfaction With Retail Site Performance



Base: 1,048 US online consumers

Source: A commissioned study conducted by Forrester Consulting on behalf of Akamai Technologies, July 2009

Figure 10: Customers Are Using Multiple Channels To Shop



Base: 1,048 US online consumers

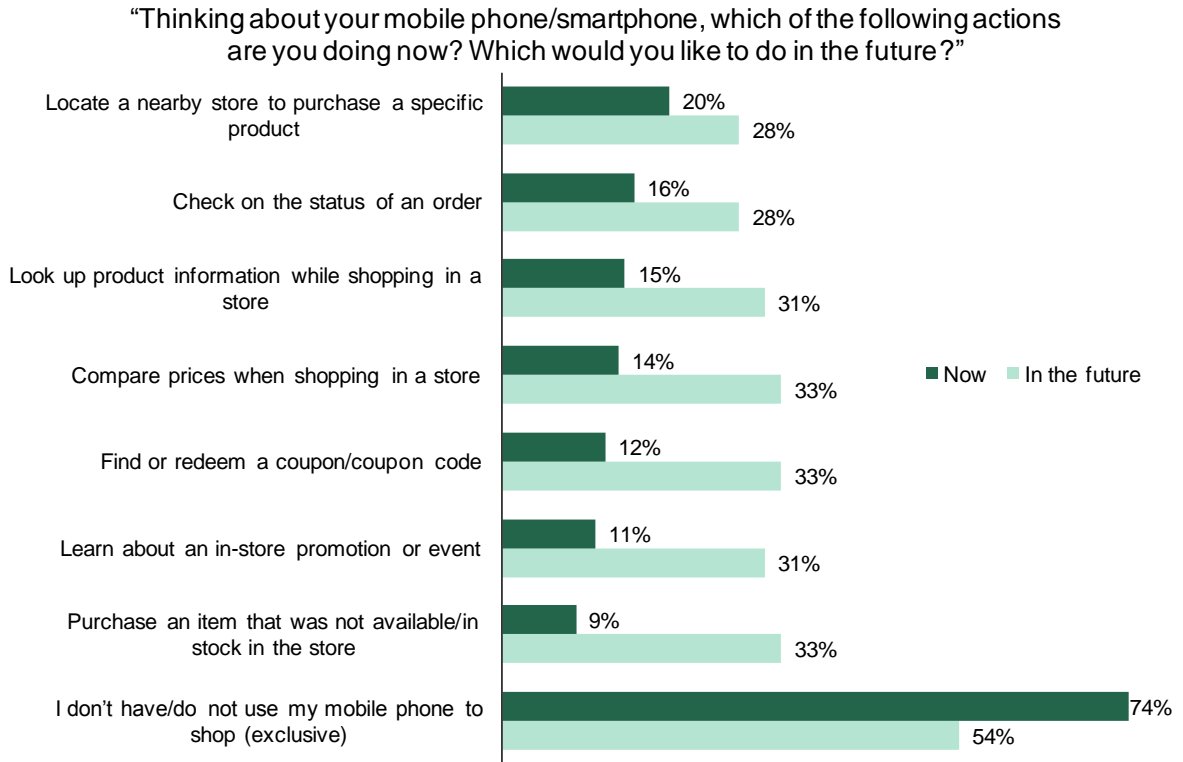
Source: A commissioned study conducted by Forrester Consulting on behalf of Akamai Technologies, July 2009

Mobile Is A Nascent But Emerging Channel

Consumers are no longer only shopping and transacting online via computers and laptops connected to the Internet directly or over Wi-Fi connections. Mobile shopping is also an emerging channel, particularly for entertainment and media categories today, with 16% of online consumers using a mobile device within the past year to shop.

- **Consumers are very interested in seeing how mobile will pan out.** While only 16% of current shoppers use a mobile device, consumers are interested in using these devices for research and shopping activities in the future. Thirty-three percent of consumers would like to find out-of-stock items in retail stores or compare prices via their mobile phones, and 31% would like to look up product information or learn about in-store promotions while shopping (see Figure 11).
- **While consumers anticipate future mobile features, there are concerns today.** Consumers highlighted a number of concerns around using their mobile phones to make a purchase. Of those, the leading concern is usability, with 33% of consumers reporting this. Twenty-nine percent of consumers are concerned about the security of making a purchase on their phone, and another 27% are concerned about the speed at which the mobile site loads (see Figure 12). Before mobile devices become a more popular channel for shopping, retail sites will need to improve performance.

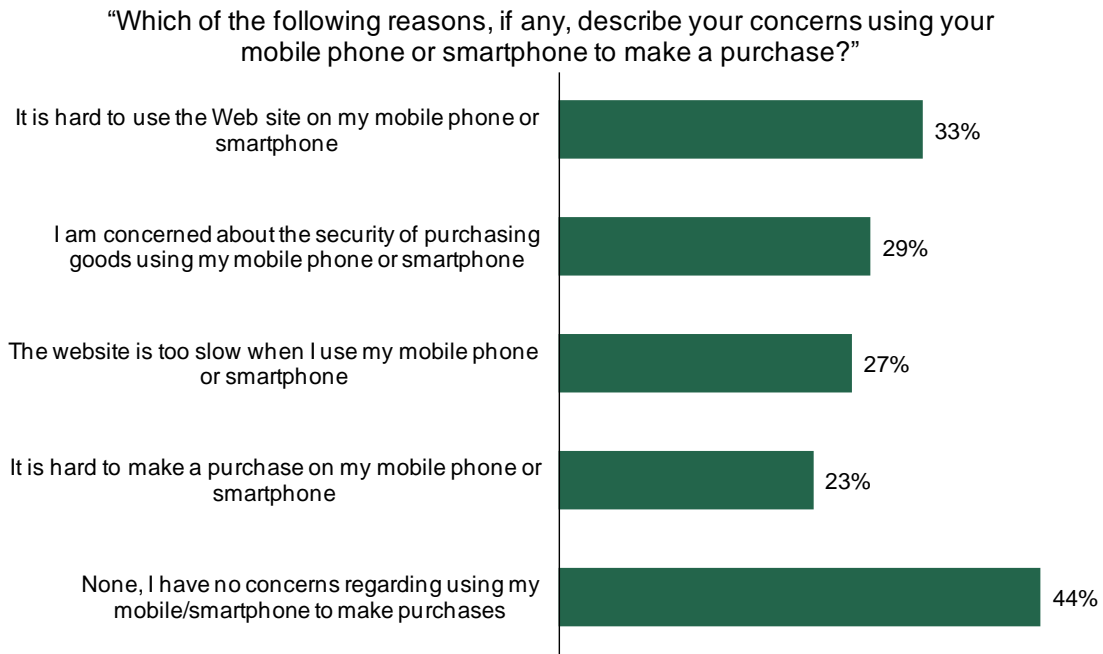
Figure 11: Mobile Shopping Is Something Consumers Want To Do More Of In The Future



Base: 1,048 US online consumers

Source: A commissioned study conducted by Forrester Consulting on behalf of Akamai Technologies, July 2009

Figure 12: Mobile Concerns Need To Be Addressed



Base: 1,048 US online consumers

Source: A commissioned study conducted by Forrester Consulting on behalf of Akamai Technologies, July 2009

Usability, Site Content, And Speed Are Key To Online Customer Loyalty

An analysis of the factors for ongoing customer loyalty reveals that the predominant factors in customers shopping and purchasing from a site in the future include site usability, content, and speed, of which more than half report them as factors. Surprisingly, 5% of customers also include the ability to shop from a mobile device.

Retailers Must Take Action On What They Can Affect

The consequences for an online retailer with an underperforming site include diminished goodwill, negative brand perception, increased site abandonment, and, most important, significant loss in overall sales. However, by taking steps to improve site features and performance, online retailers can look to increase overall consumer satisfaction and ultimately increase sales.

- **Test your Web site performance.** As our study shows, overall Web site performance is a key factor in a consumer’s loyalty to a retail site. You should test how your Web site performs where consumers put the most focus: How easy is your site to use? How long does it take to render a page? Do you receive error messages? Is your checkout process straightforward? Have several people test the performance and compare notes.

- **Take care of the easy fixes first.** Tackle the problems that your team can fix easily first. Then develop an achievable plan to improve those factors that may take longer to accomplish. Seeing the benefit from addressing that low-hanging fruit will help you make the business case for taking on more difficult issues.
- **Use site content and functionality that build brand image to improve the multichannel experience.** As we saw, customers shop across a variety of channels, and a negative experience online can affect how they purchase elsewhere. By taking the time to improve the overall site content and functionality, you can bolster the overall brand and image of your company. Dynamic features included on your retail site help to imitate the in-store experience for the consumer, which can lead to increased satisfaction and loyalty from the consumer.

Appendix A: Study Objectives And Methodology Overview

In April 2009, Akamai Technologies, Inc., commissioned Forrester Consulting to evaluate consumers' expectations of online shopping sites and mobile shopping sites as well as the impact on their perceptions of companies with poor-performing sites.

Specifically, Akamai Technologies commissioned this study to determine:

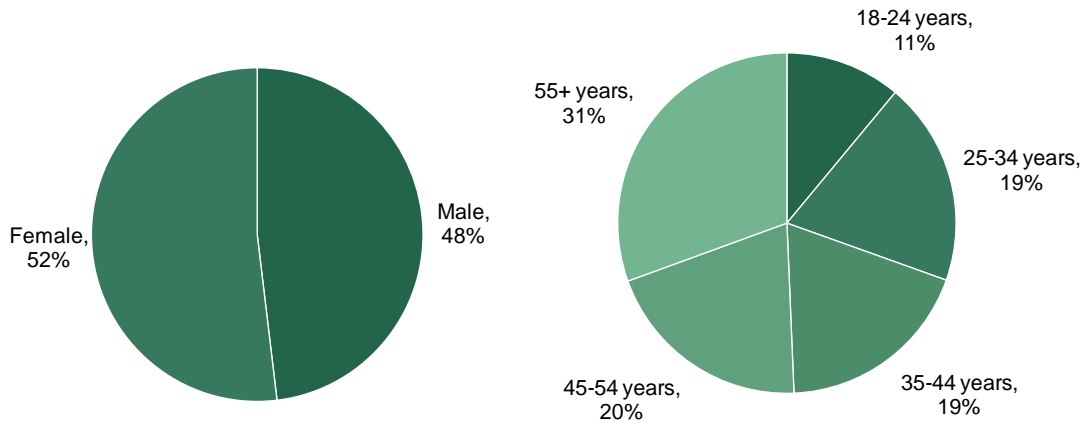
- To what extent do poorly performing Web sites affect the behavior of online consumers?
- How is shopping cart abandonment related to poor site performance?
- How important is it to have a Web site that renders in a timely and appropriate manner?
- What are consumers' expectations for the performance of the Web sites with which they visit and transact?
- What are the implications of poorly performing sites?

In July 2009, Forrester Consulting conducted an online survey of 1,048 online shoppers in the US. This methodology was consistent with the 2006 study methodology.

Appendix B: Demographics/Data

In this survey, the respondents broke out as follows:

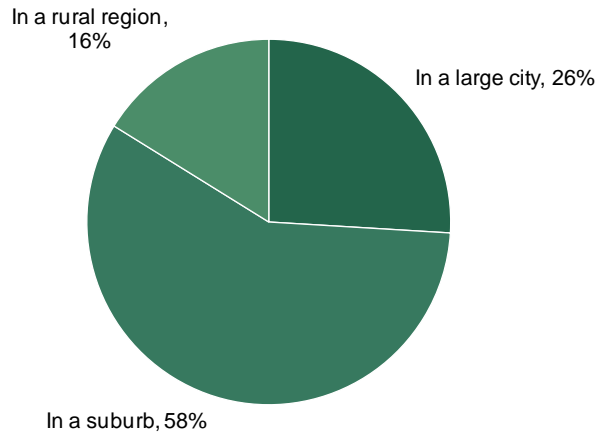
Age And Gender Distribution



Base: 1,048 US online consumers

Source: A commissioned study conducted by Forrester Consulting on behalf of Akamai Technologies, July 2009

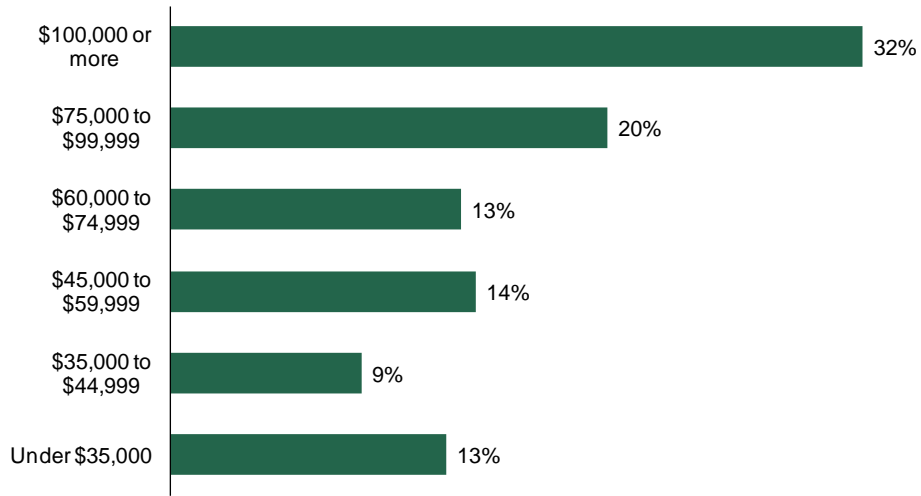
Geographic Distribution



Base: 1,048 US online consumers

Source: A commissioned study conducted by Forrester Consulting on behalf of Akamai Technologies, July 2009

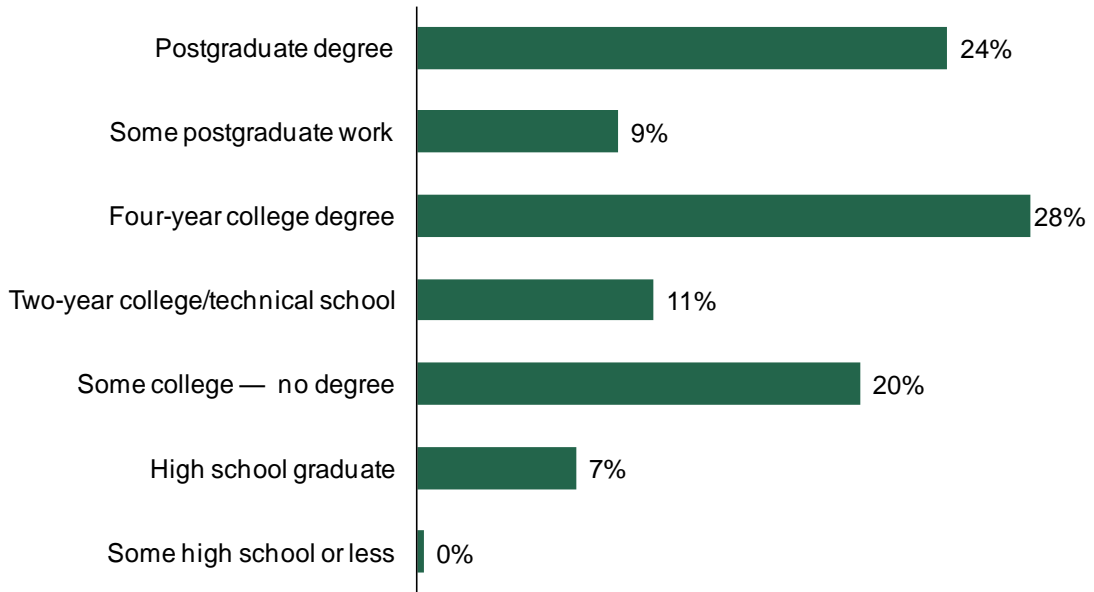
Income Distribution



Base: 1,048 US online consumers

Source: A commissioned study conducted by Forrester Consulting on behalf of Akamai Technologies, July 2009

Education Distribution



Base: 1,048 US online consumers

Source: A commissioned study conducted by Forrester Consulting on behalf of Akamai Technologies, July 2009

Appendix C: Endnotes

¹ The previous study is titled “Retail Web Site Performance: Consumer Reaction to a Poor Online Shopping Experience” by JupiterResearch, which is now a part of Forrester Research.