

SciVisum Christmas 2014 eCommerce mobile experience report

Website testing specialist SciVisum Ltd recently carried out a survey to monitor the product pages of 10 leading UK eTailers over a 5 week period in the run up to Christmas, on both desktop (Firefox) and mobile (Android) browsers.



Executive Summary

Website testing specialist SciVisum Ltd recently carried out a 'Christmas eCommerce mobile experience survey'. Product pages on 10 of the UK's leading retail websites were monitored for a 5 week period in the run up to Christmas, on both desktop (Firefox) and mobile (Android) browsers.

To place all eTailers on a level playing field, network latency was excluded from the monitoring. As such page delivery to an end user over a 3G ,4G or other network connection would be slower.

The results reveal a large gap between the best and the worst mobile web performers in the UK eCommerce sector.

Despite mobile now being the browsing device of choice in the UK, the key findings show poor page delivery times and large mobile page sizes.

Perhaps the biggest surprise was two leading UK eTailers serving desktop pages with no mobile friendly features at all to Android browsers. In particular Apple served optimised mobile friendly pages to iOS browsers but not to Android.

In the run up to Christmas and particularly on Black Friday, UK websites need to prepare for demand from mobile consumers by optimising their page content, or risk of losing sales as a result of consumer frustrations.

mCommerce Background	2
The Importance of Speed	3
Page Delivery Times	4
Availability	6
Page Size	7
Mobile Web Implementation	9
Preparing for Peak Traffic	10
The Best Performers	12
Takeaways.....	13
Appendix - Testing methodology....	14

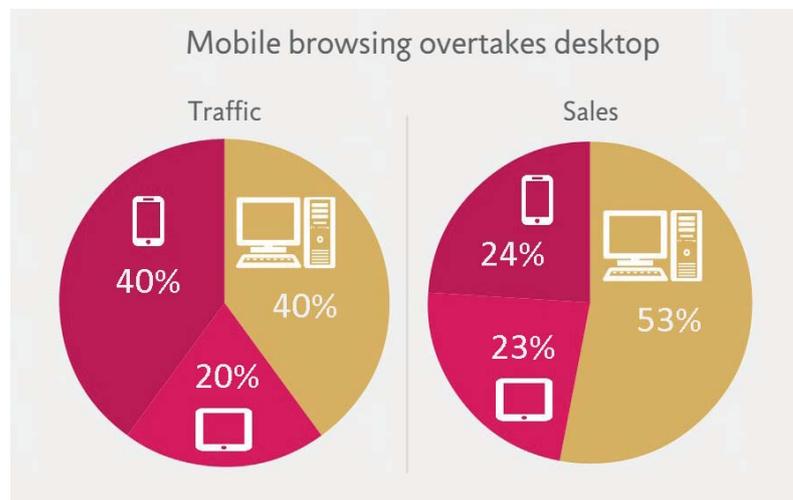
Findings also show that a small number of leading eTailers have heeded the warnings of poor mobile experience and consistently delivered a far better user experience than the worst offenders. However it is clear that many UK eTailers still need to get their house in order to take advantage of the mobile opportunity.

The following retailers UK websites were monitored based on 'IMRG and Hitwise top 100 online retailers in the UK 2013'

- | | |
|----------------|----------------------|
| 1. Amazon | 6. John Lewis |
| 2. Apple Store | 7. Marks And Spencer |
| 3. Argos | 8. New Look |
| 4. ASOS | 9. Next |
| 5. Debenhams | 10. Tesco Direct |

mCommerce Background

Mobile is now the preferred method for browsing with more than half of all time spent on retail sites taking place on a mobile devices. Mobile devices accounted for 60% of browsing in the UK on Black Friday (Source: IBM).



Furthermore mCommerce is now proving more popular with 47% of online sales being driven by mobile on the same day.

The Importance of Speed

Mobile consumers have high performance expectations; 90% perform tasks across multiple devices and 72% demand the same quality of experience as desktop. Delivering fast, available web performance across devices has never been more critical.

Slow sites are a major cause of abandonment and moreso with younger consumers.

1 second may sound like a short amount of time to most people but for eTailers, a 1 second delay can have a significant impact on brand perception and bottom line.

Recent research by Radware shows that even a 1 second delay in mobile page load times can damage conversions resulting in:

- increased bounce rates by 8.3%
- decreased page views by 9.3%
- decreased cart size by 2.1%
- slow pages driving mobile shoppers to the competition
- 30% of dissatisfied mobile shoppers refusing to return to a site

Research by Netbiscuits states that 91% of users experiencing problems will turn to a competitor's mobile site, to complete a task.

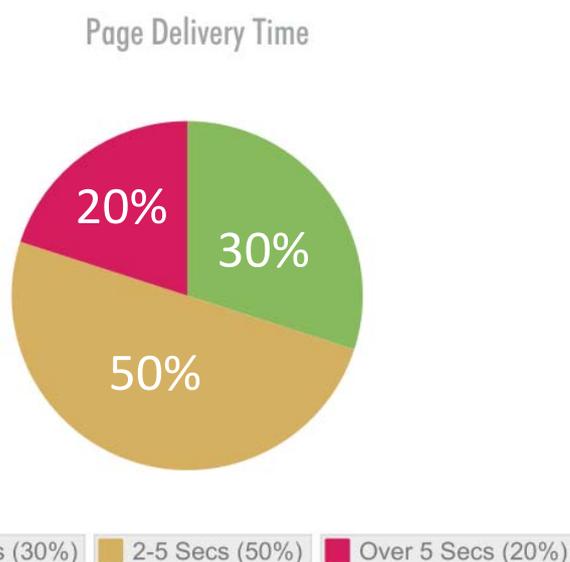
Conversely good mobile experiences are almost equally likely to lead to positive recommendations and word of mouth with 80% of respondents stating they have recommended a brand based on mobile performance.

Page Delivery Times

To make fair comparisons across eTailers and to minimise the impact of factors not directly under their control, page delivery times were monitored without throttling (network speed emulation). As such all page delivery times are faster than they would be on 3G, 4G or other networks.

Google's expectation is for page delivery 'Above The Fold' in less than 1 second and 2 seconds is now a common consumer expectation for page delivery.

Page delivery times were poor on the whole with only 30% of leading eTailers mobile pages loading in under 2 Seconds. Page delivery times across a wireless network connection would be completely unacceptable.



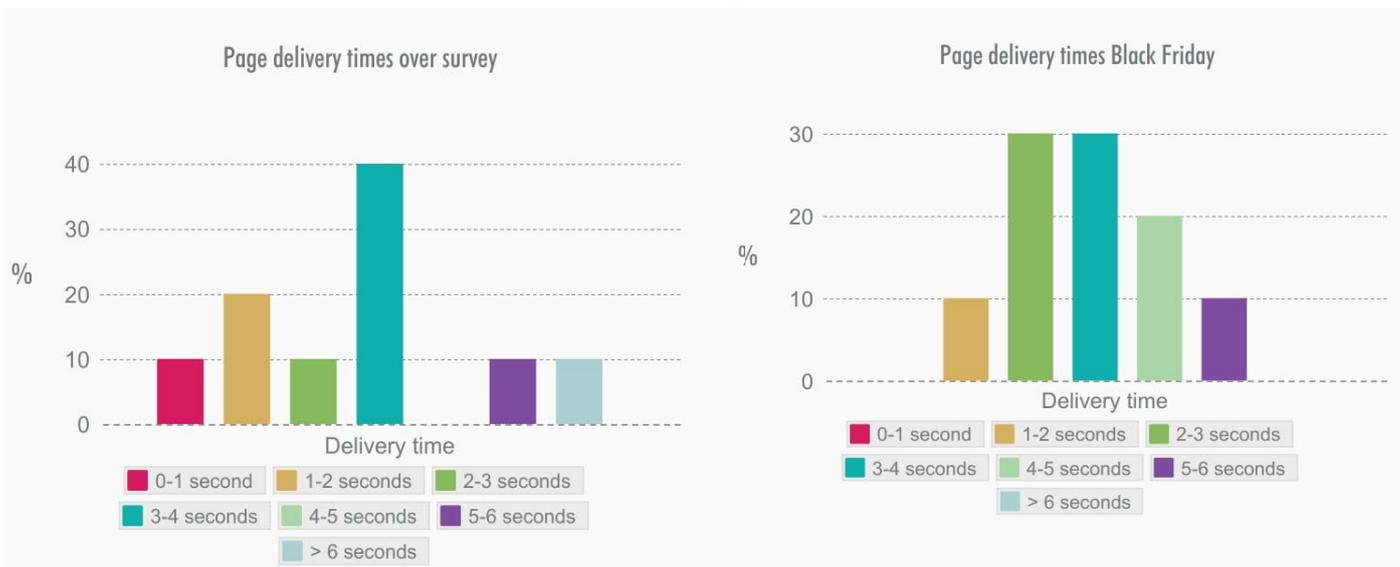
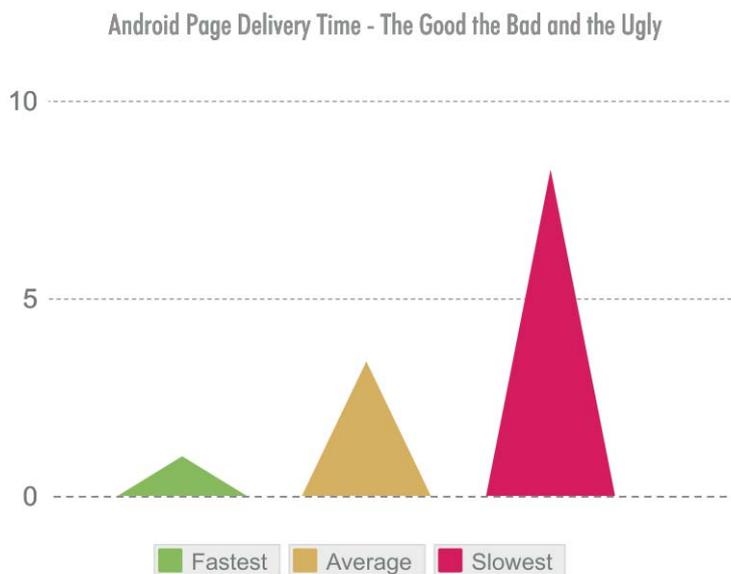
The average page took more than 3 Seconds to deliver to a mobile device across all eTailers monitored.

In the worst case (on a responsive site) average page delivery time for Android browsers was 8.5 seconds, quite unacceptable for a leading UK brand name.

1 in 10 of the sites monitored had mobile pages that loaded in 1 Second or less.

There was a large difference in page delivery times between the best and worst performers, with the slowest average page delivery time eight times slower than the fastest.

Page download times were slower on Black Friday for the majority of eTailers (6 out of 10).



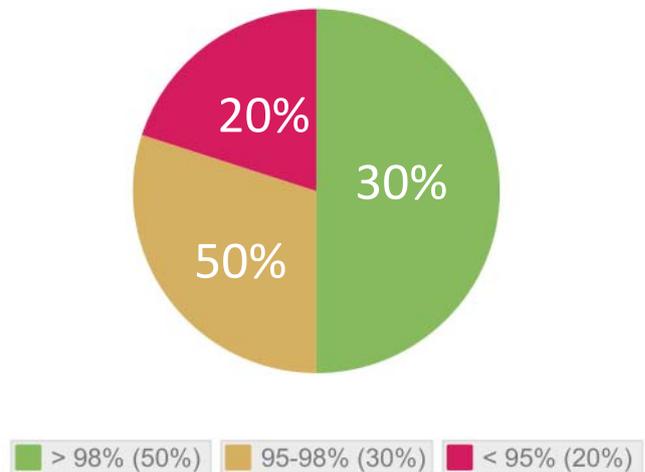
Availability

On average page availability was good and similar on both desktop and mobile devices, averaging around 98% across all journeys for the whole survey period.

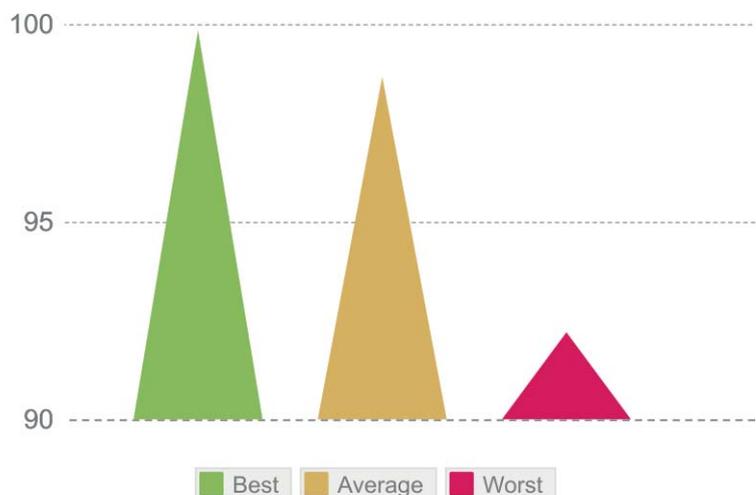
Availability across all sites dropped to 96% on Black Friday and in the worse case dropping to 93% on one leading eTailer's site, indicating that some were not ready for high levels of traffic.

The gap between the best and the worst performers was not too large for availability.

Availability - Black Friday



Android Availability - The Good the Bad and the Ugly



Page Size

Despite the fact that mobile pages should be optimised, 30% of the top 10 UK eCommerce sites had mobile pages which were actually similar in size or even larger than the same page delivered to desktop browsers.

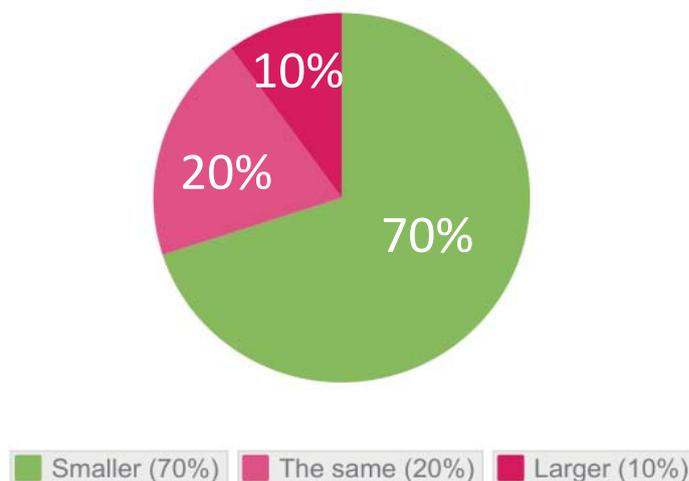
On average pages that were larger than desktop pages were larger by almost 150%. The worst was almost 3 times the size of its desktop counterpart.

On the plus side, 70% of sites did reduce page sizes – on average by 55.3%, the largest reduction being almost 90% smaller.

Quite shockingly the average page size was 2.2 M – way too large for mobile devices - but this average was skewed by 2 eTailers with particularly large pages. The median page size paints a better picture, though still not great at 790Kb.

The majority (60%) had page sizes between 500Kb – 1Mb.

Page size change for mobile



Page Size

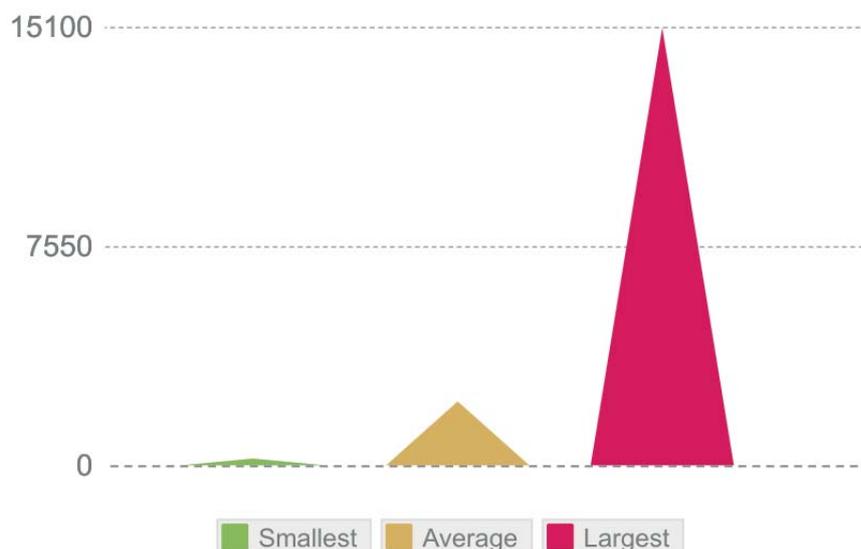


The greatest gap between the best and worst results existed for page size with the largest average page size weighing in at 65 times that of the smallest.

The fastest page had an average size of 232Kb, taking 1 second to load.

The two worst offenders had average product page sizes of 2Mb and 15Mb with more than 90 images on each.

Android Page Size - The Good the Bad and the Ugly



Images were primarily responsible for the extreme sizes and on a responsive site both JavaScript and images jointly accounted for more than 80% of the total page size, split equally between the two types of component.

On the Apple Store, the average product page delivered to Android users was almost three times that of the desktop page and had more than 109 components totalling over 15Mb. Images accounted for 95% of the page size, including several images over 1Mb in size each and one image at 4Mb.

Perhaps this was a bug with the JavaScript or was it deliberate?

In defence of the Apple Store, pages are quite long and as such time to load content above the fold will be slightly better than the results suggest.

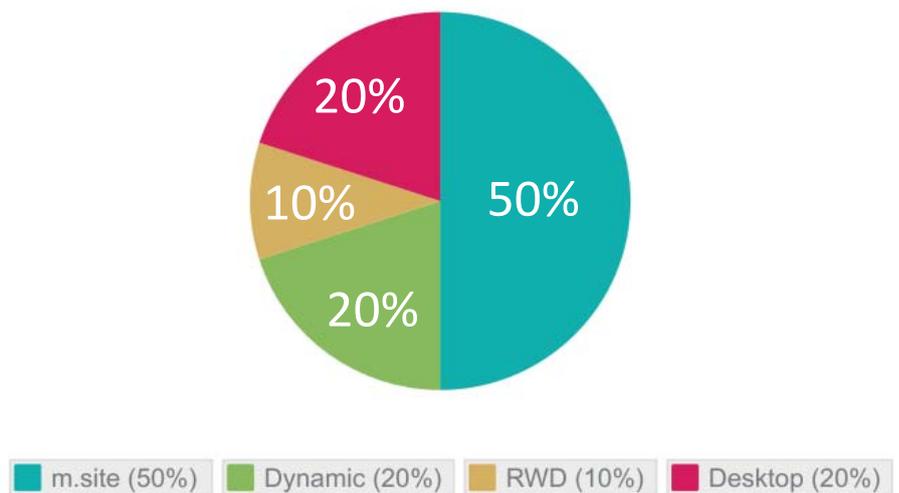
On the whole page sizes were larger because of multiple images often not optimised and responsive design.

Mobile Web Implementation

Shockingly 2 out of 10 of the leading UK retail sites were still serving desktop sites to Android users. These pages had no features to help mobile users. Despite having a dedicated mobile site, one retailer did not make this automatically available to mobile users - in fact there was not even a link to their mobile site on their homepage, instead it's necessary to Google for it. The other retailer (Apple Store) served optimised, mobile pages to iOS browsers but not to Android browsers. In fact sending much larger pages to Android users.

7 out of 10 eTailers were delivering separate mobile pages either from a dedicated m.site or from the main domain. The top performers were either detecting the user agent and serving pages dynamically or had dedicated mobile sites. The responsive site had substantially slower page delivery times than the other sites.

Mobile web implementation



Of those serving specific mobile pages, 71% were using a dedicated m.site, the remaining 29% were detecting the device and serving the appropriate pages.

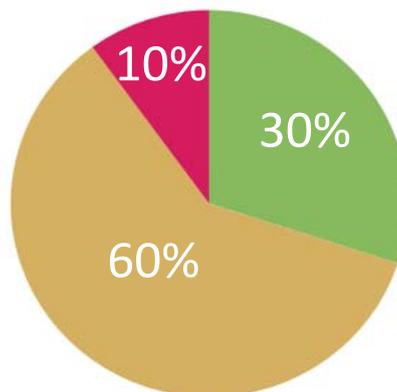
1 of the 10 sites had a fully responsive website design and 80% had fluid/ partly responsive designs down to 10" tablets. Though 1 retailer was serving smartphone pages to a 10" tablet which is particularly frustrating for mobile consumers expecting full functionality on larger tablets.

Preparation for Peak Traffic

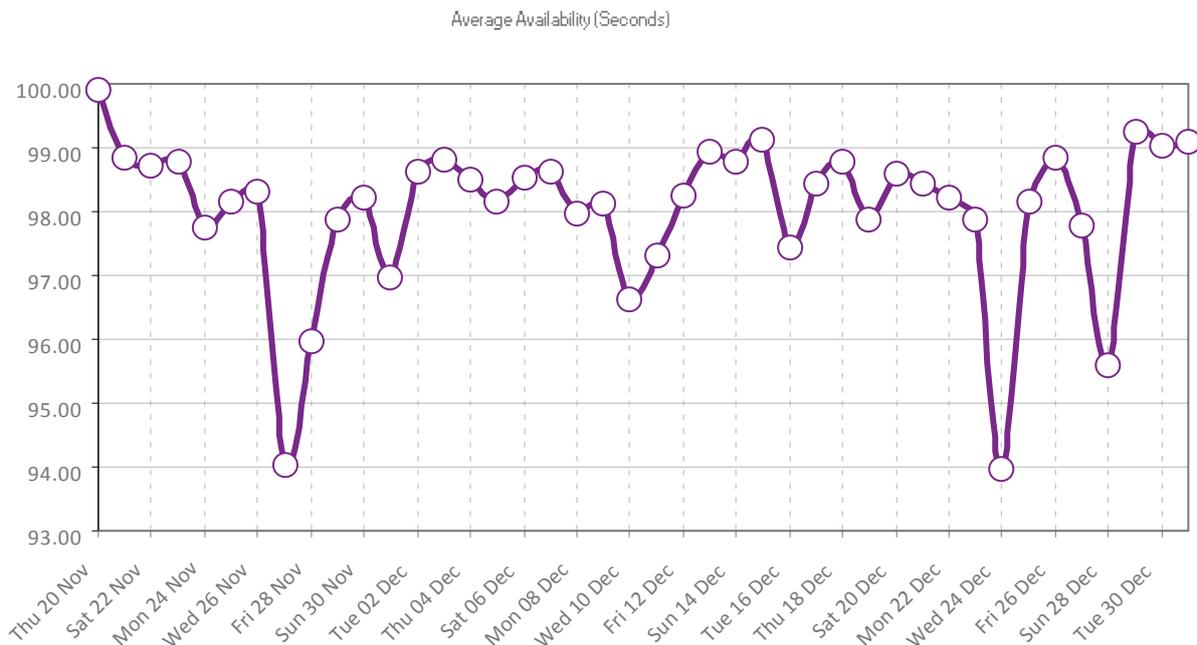
The majority of retailers (60%) had reduced mobile page size in anticipation of Black Friday, helping speed up page delivery times. However this left a large percentage (40%) serving mobile pages that were the same size or larger than average. Reduced pages were on average 19.3% smaller the same pages throughout the survey.

The largest reduction in page size was for the responsive site reducing it's page size for mobile users by 68% on Black Friday.

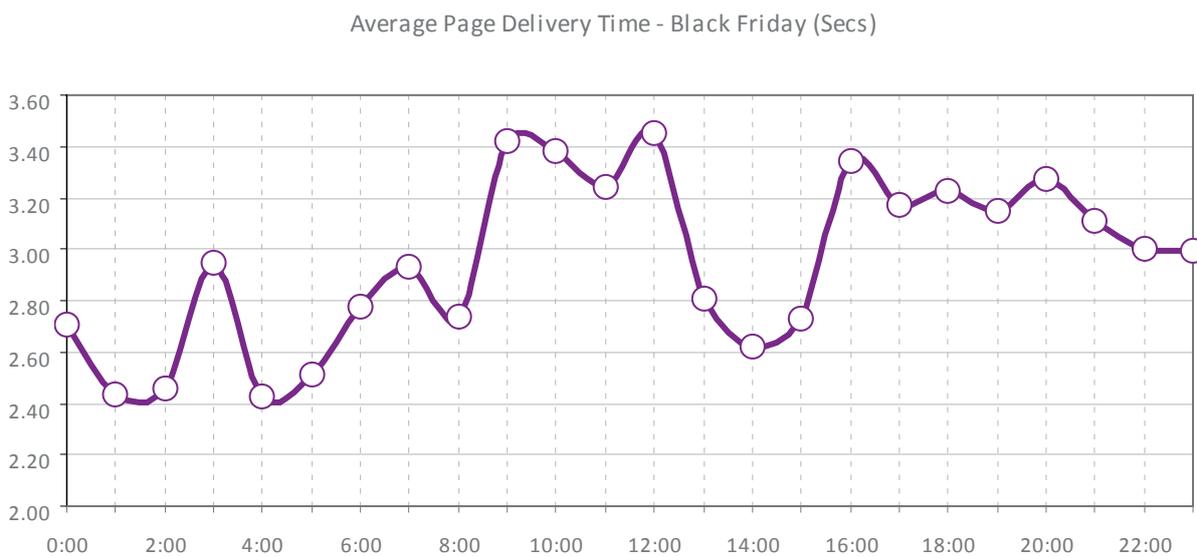
Android page reduction for Black Friday



Results showed a clear dip in availability around Black Friday. So despite the majority of eTailers reducing page size for the event it would seem that availability was still a problem across the board.



Average page delivery time across all journeys on Black Friday shows sites slowing at peak shopping times, particularly over lunch and then again in the early evening.



The Best Performers

Marks and Spencer and John Lewis were amongst the best performers, consistently appearing at the top of the league tables for all metrics measured, both of these had dedicated mobile sites.

Those delivering desktop sites were amongst the worst performers, as was the fully responsive site.

eTailers were ranked based on a combination of page size, page delivery time and availability.

Top 5 Performers	
1	M&S
2	John Lewis
3	Amazon
4	Argos
5	Debenhams

Takeaways

It seems that delivering a good mobile experience is still a way off for many retailers, though it is clearly possible as illustrated by the top performers. Possibly many retailers simply don't yet appreciate the risks of poor mobile performance.

When user journey problems occur on mobile the fallout is far greater than desktop. Mobile users are less patient and less tolerant. But with continuous visibility of mobile experience retailers can overcome this, to increase both conversions and customer loyalty.

Of course there is a lot more to a great user experience than performance, usability and rich functionality are also necessary, and delivering both often involves a tricky trade off.

To deliver great mobile performance, you need an ongoing process to continuously test mobile journeys and ensure mobile performance is managed. Using a high-touch monitoring service makes it possible to manage the complexities of delivering a website across multiple devices, without the hassle. Instead you can focus on driving the website and the business forward and relax in the knowledge that your site is delivering outstanding mobile experience.

User experience can vary widely on Android and iOS iPhone/iPad versions of a website, so it's important to consider both mobile browsers when planning your mobile monitoring strategy.

We recommend these three steps to form a firm basis for delivering excellent mobile experience/getting mobile right:

- 1) Know what experience you're delivering by ensuring key mobile journeys are being monitored 24/7
- 2) Ensure mobile journeys can support peak traffic by load testing well in advance
- 3) Optimise... optimise... optimise

Appendix

Notes on testing methodology

- Monitoring was performed by SciVisum's Mobile Web Monitoring service.
- The service emulates iPhone, iPad and Android users making complete journeys across your site, giving uniquely realistic visibility of your mobile experience. Journeys are sampled at 5 minute intervals.
- All testing took place on UK websites using test injectors based in the UK.
- No throttling was applied to results to present results across a level playing field.
- Although Next have a dedicated website as this is not automatically served to mobile users, we monitored the desktop delivered to a mobile device as we felt this is what most consumers would have experienced.

About SciVisum Ltd

For over 10 years the UK's largest online names such as Debenhams, Boden, Joules and Dixons have chosen SciVisum to maximise user experience and protect their brand. For those seeking a realistic measurement basis on which to base budget and planning decisions SciVisum are the number one choice with their unique, dynamic user journey approach for website monitoring and load testing services.



Our highly experienced team of test professionals help clients implement monitoring programmes and pro-actively oversee testing; automatically updating journeys as a website changes, highlighting performance issues and helping clients quickly pinpoint root causes - saving time and money.

To find out how SciVisum can help you implement the best monitoring programme to suit your organisation please contact us on 01227 768276 or visit our website at www.scivisum.co.uk

Related eBooks available on the SciVisum website

'Meeting the challenges of modern website performance'

'Ten steps to implementing a successful web performance monitoring programme'