

The need for Pagespeed

Why every second counts
in eCommerce

Changing digital needs

The demands on eCommerce websites are changing significantly. With COVID-19 forcing more people online and consumers now expecting a quality experience, there is more pressure than ever on businesses to ensure they have a fast, optimised and high-performing website. Any retail pagespeed deficiencies can easily lead to lost customers and ultimately, lost revenue.

So, we decided to investigate the website speed of some of the UK's leading eCommerce brands to test how page load times vary from site to site. Read on to discover the key findings, and the winners and losers from our performance testing.



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Page Speed

A unit of increasing worth

Google is about to introduce 'Core Web Vitals' as part of the ranking criteria for search.¹ This includes metrics such as 'largest contentful paint' (LCP) as well as traditional metrics such as 'time to first byte' (TTFB). Google ranks anything that has an LCP of more than 4 seconds as 'poor,' and anything between 2.5 to 4 seconds as 'needs improvement.'¹ Core Web Vitals will be combined with traditional search signals (mobile-friendliness, safe-browsing and HTTPS security) to provide an overview of page experience. Google has noted that due to COVID-19, many businesses are busy combating urgent issues, so this change is not expected for another six months. Nevertheless, webmasters should take action now.

According to Google's Core Web Vitals

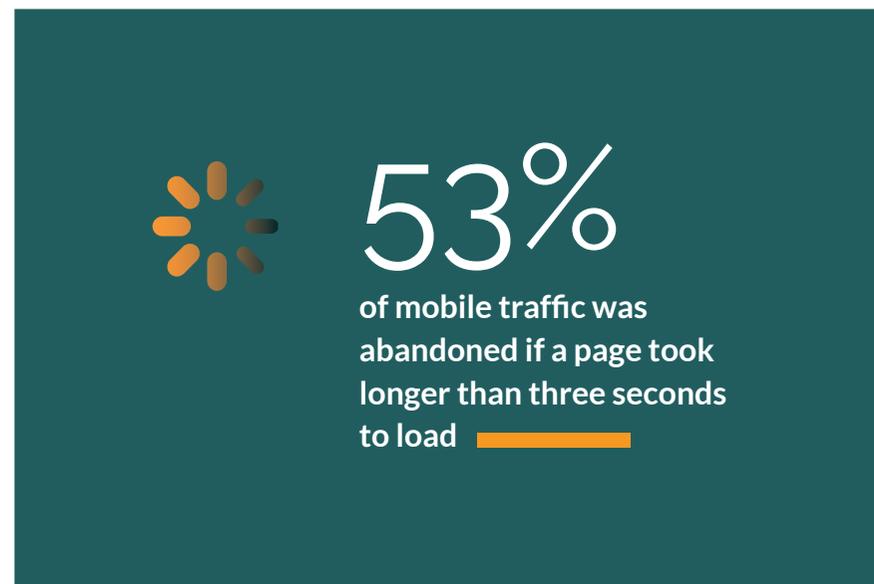


¹ <https://webmasters.googleblog.com/2020/05/evaluating-page-experience.html>

If Google includes pagespeed insights and data as a core component of its ranking algorithm, a slower loading website will rank lower than its faster competitor. This means that market leaders with poor performing websites risk being outranked by smaller businesses. For example, Barbour, Tiffany & Co and Armani are successful brands, but their websites fared poorly in our tests compared to their competitors.

Why is this important? Page performance directly impacts sales. Users expect rapidly loading content and are quick to abandon their search if websites don't meet their expectations. The BBC recently found that for every additional second its website took to load, it lost 10% of users.² DoubleClick by Google found that 53% of mobile traffic was abandoned if a page took longer than three seconds to load.³

As more users choose to shop on their mobile devices, poor pagespeed will increasingly impact eCommerce sales.



The infographic features a dark teal background. On the left is a loading spinner icon composed of several orange and brown segments. To its right, the text '53%' is displayed in a large, white, sans-serif font. Below the percentage, the text 'of mobile traffic was abandoned if a page took longer than three seconds to load' is written in a smaller white font. A horizontal orange bar is positioned at the end of the sentence, representing the 53% figure.



²<https://developers.google.com/web/fundamentals/performance/why-performance-matters>

³

When a website isn't quick to load, everyone loses. Slow page load speed turns buyers off and loses businesses money. But now, this has taken on even greater importance. Pagespeed data will directly impact how your business ranks on Google.

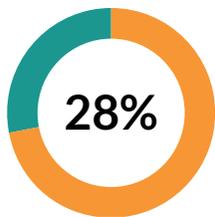
Dae.mn is an established technology consultancy that started out working on Performance Engineering with some of the UK's biggest retailers, including Sainsbury's, Clarks and Moonpig. We will be collecting live data and pagespeed insights from various sectors and presenting them on our website.



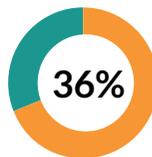
When a website isn't quick to load, everyone loses. Slow page load speed turns buyers off and loses businesses money. ▬

In the wake of Covid 19

Consumer behaviour



28% of total retail sales are accounted for by online sales



36% customers increased their online shopping



50% have tried to limit the time they spend in stores

Consumer behaviour has changed enormously over the last few months. More of us than ever before are shopping online, venturing out less frequently to stores.⁴ This has put pressure on eCommerce sites and business infrastructure.

In the space of just a few weeks over the COVID-19 lockdown period, 36% of UK consumers said they increased their online shopping, while 50% have tried to limit the time they spend in stores.⁵ **According to the Office for National Statistics, online sales account for 28% of total retail sales.**⁶

⁴ <https://www.bbc.co.uk/news/business-53402767>

⁵ <https://internetretailing.net/industry/industry/online-grocery-sales-grow-33-in-2020-as-shopping-habits-shift-permanently-consumers-tell-mintel-21316>

⁶ <https://www.ons.gov.uk/businessindustryandtrade/retailindustry/timeseries/j4mc/drsi>



**Customers shared stories of ridiculously long waits and
poor online experiences.**

A lot has been said about the ‘new normal,’ but one trend likely to affect all online retailers is a shift towards ‘pay online, collect in store’ models. More than half (56%) of consumers now prefer to pay this way.⁷ This ‘Click & Collect’ omnichannel approach to shopping means the pressure is on retailers to offer seamless shopping experiences both online and offline. All this represents a huge shift in shopping behaviour for the majority of retailers.

It has also presented challenges, with the lift in demand creating gridlock. Many providers introduced queue management systems, only allowing 100,000 visitors to a site at a time. This didn’t work out as planned, with customers sharing stories of ridiculously long waits and poor online experiences.⁸

In the wake of COVID-19, pagespeed is a key determinant of a brand’s staying power. Websites we’ve assessed with quicker loading pages not only perform better across Google’s ranking index, but also serve customers quicker. Websites built to cope with demand can see record sales, whereas those with problematic design risk losing business in the long term.

Our index of website speed and performance across UK eCommerce is based on a series of metrics. Let’s look now at how we assessed the market.

⁷<https://www.mckinsey.com/industries/retail/our-insights/adapting-to-the-next-normal-in-retail-the-customer-experience-imperative>

⁸<https://www.telegraph.co.uk/news/2020/04/14/diy-stores-introduce-online-queuing-systems-deal-lockdown-demand/>

How we test page speed

Our process

Our investigation and testing aims to bring you a series of unique pagespeed insights into the best and worst performing websites in the market. At the end of this eBook, we've included a few short-term tactics to help improve your site's performance.

We currently base our pagespeed index on 35 unique data points. These criteria are used to weigh, score and rank performance of websites against each other.

Factors that affect performance constantly shift. This process is heuristic; changing based on the live data we obtain from companies we're tracking. As such, we're committed to updating and iterating our 35 criteria as we progress.



We intend to keep ranking market performance and carrying out website speed tests, so businesses can continually check their performance and gain insights into where they need to make improvements.

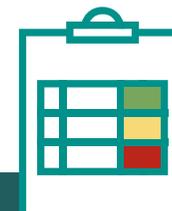
Our data points include:

-  Page load time
-  Caching
-  JavaScript execution time
-  Image scaling
-  Content size
-  Google web vitals

We assess best practice techniques to create an individual score per area, weighted and combined to give an overall Daemon Page Speed Index score between 0-100.

How is your business performing?

This provides a real, unique insight for those working in retail. We look at individual high traffic pages that demand quick responses. As a result, you'll see exactly what's happening in the industry and where to focus your team's attention to improve your site's performance. Google does not currently offer a leaderboard refined by industry, so this level of scrutiny and monitoring isn't currently on offer elsewhere.



Scoreboard

-  **Excellent**
(76-100)
There is a strong focus on performance within the organisation. Users will benefit from good page load times and SEO will be high
-  **Fair**
(50-75)
Evidence of some best practice being applied but still many areas for improvement
-  **Requires improvement**
(0-49)
Some basic performance techniques being missed and a significant impact on user experience.

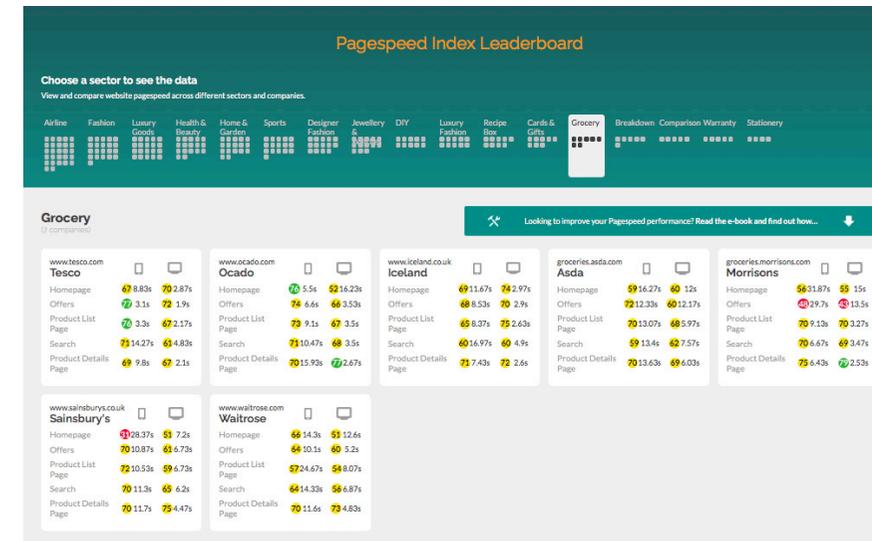
The landscape of UK eCommerce

Our research

To get a full view of the UK eCommerce landscape, we analysed the pagespeed performance of more than 200 websites across multiple sectors, including, Fashion, Home & Garden, DIY and Groceries.

This ongoing analysis is now presented on our Dae.mn Pagespeed Leaderboard, which provides a simple visualisation of all the data we've collected. The data powering this 'live' pagespeed leaderboard is updated daily.

[View the Leaderboard](#)



Market analysis

What our research says



We evaluated a range of the UK's top performing retailers on pagespeed performance. What follows are some key figures, comparisons and trends that emerged from our website speed tests, many of which are likely to have an impact on bounce rate and rankings.

Our data indicates that page load times across some of the UK's top retailers vary considerably. We looked at comparable pages across several different companies in numerous retail sub-sectors. Across these sectors, we're seeing a range of interesting trends. **Whilst Google is looking at LCP as its main criteria for pagespeed, we've adopted a more user-centric metric: Visually Ready. This is when 95% of the page is fully rendered 'above the fold' to the user.** There is a direct correlation between Visually Ready and LCP and, as this is a core component of how sites will be ranked, retailers cannot afford to fall short in this area.



In the infographic we can see how average Visually Ready pagespeeds vary across sectors.

When we delve deeper, we can see companies like Amazon, Very and Jack Wills are the best performing websites. Their Product Listing pages are Visually Ready in less than 3 seconds, with page weights less than 1.6MB, and less than 1.3 seconds for script execution. At the other end of the spectrum, Barbour, Tiffany & Co and Armani take more than 15 seconds to be Visually Ready.

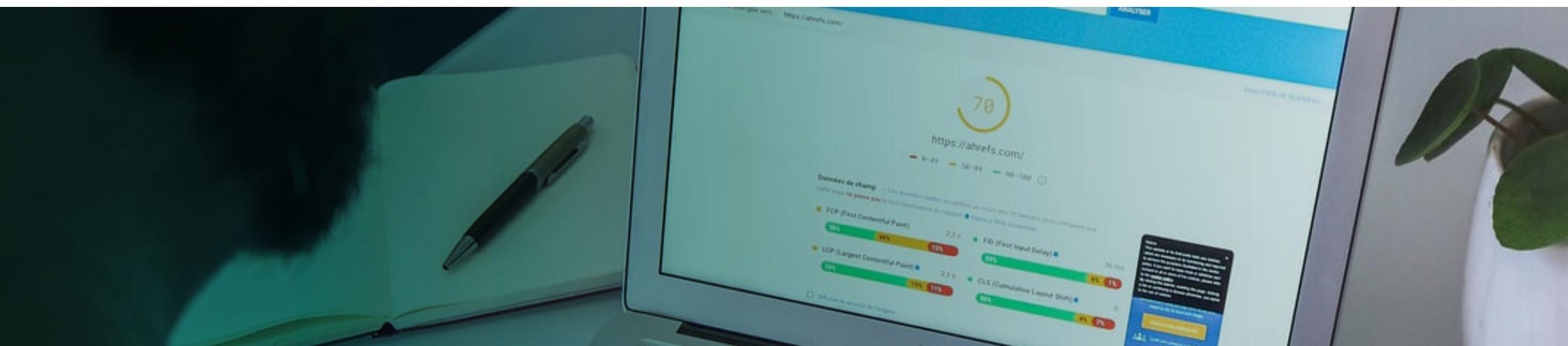
Within each sector, we see some interesting trends. On desktop for Luxury Goods the Product Listing Page load time varies from 1.7s to 24.3s, while for Airlines it is 2.2s to 25.6 seconds. For what are essentially the same pages within these sectors, the gap in performance is notable.

The number of requests ranges significantly too. Our top performer, Etsy, only had 45 requests, whereas the weakest performer, Ryman, had 467. More requests means more roundtrips to the server, ultimately slowing down the page for the user.



In terms of page transfer size, only 6 of the sites we tested have a weight less than 1MB, with the figure rising up to 17.15MB for a single page. **There is a direct correlation between the size of a page and its load time and, given the high variability in mobile speeds, a large transfer size could make a webpage unusable.**

These figures highlight the wide variation in website performance across UK eCommerce, but also the vast impact this is likely to have on businesses whose pagespeed performance doesn't reflect their storefronts. Poor page speeds impact user satisfaction, ultimately resulting in lower sales. It also reflects negatively on the brand, as customers are less likely to return to a slow loading website. Companies may have large physical footprints, but as more and more of us shop online, slower page performance is likely to have a bigger impact on their market share.



Key highlights

- Only **half the companies** we evaluated in our website pagespeed tests send images in the right size for the device or browser. The rest let the browser scale the image instead, which results in much more traffic being sent over the wire.
- The majority of sites contain requests that are **missing a cache time**, meaning that a subsequent hit would still have to retrieve the resources over the network.
- All **but six of the sites** have uncompressed JavaScript over 1MB in size. Some sites had uncompressed JavaScript as high as 12.39MB.
- The majority of sites are using HTTP/2, which offers multiplexing and faster resource loading. However, most of these sites are **domain sharding** (necessary for HTTP/1.1). This actually has the potential to hinder performance on HTTP/2.
- Half the sites **aren't deferring offscreen images**. This results in images being prioritised even when outside the viewport, leading to a far slower perception of pagespeed.

With issues like these, it's easy to see why pagespeed performance varies so significantly across the sites. Within all sectors, it's a shame to see companies selling similar products online without comparable SEO strategies. As Google is now including pagespeed data into its search rankings, a slower site will rank lower than a faster performing one. Market leaders risk being outperformed by smaller competitors over a technicality.

We also know from numerous studies that slower pages result in a far higher bounce rate. If the products you sell can be sourced faster from a competitor, keeping users on site should be a top priority. 

Optimise your pagespeed

Our insights

There are a few key steps businesses can prioritise to improve website speed and performance, based on Google ranking factors and industry best practices.

Lose landing page redirects

If your customer tries to load a page and instead is sent somewhere else, it increases the time it takes for your site to render and impacts the customer experience. Landing page redirects negatively impact pagespeed ranking, which hurts SEO.

If you can remove site redirects, we suggest you do so. Keep landing pages on site, and keep the number of redirects to a minimum.



In retail, pages typically contain multiple images and large JavaScript files. A customer will have to download these every time they visit your site, which can be a slow and unnecessary process.



Enable compression

Modern browsers all support Gzip compression for HTTP requests. By enabling Gzip compression, you reduce the size of the transferred response by up to 90%.

This will reduce the time it takes for a user to download the resource, which will reduce data usage for your customer. It will also improve your first render time.



Improve server response time

When loading an HTML document, server response time is required so that the browser can render a page. The longer your server takes to respond, the longer the HTML will take to load.

The browser won't pick up the full extent of resources needed to display the page properly. This will all negatively impact pagespeed, SEO performance and UX.



Leverage browser caching

In retail, pages typically contain multiple images and large JavaScript files. A customer will have to download these every time they visit your site, which can be a slow and unnecessary process.

Browser caching helps by storing these files locally in the user's browser. The first visit to the site will take time to load, but subsequent visits become faster. As such, website user experience actually improves with loyalty to your site.



Minify resources

The term 'minification' is the process of removing unnecessary data from the resource, without impacting how it is used by the browser. For example, comments and formatting can both be used with shorter, variable names, removing any redundant code.



Optimise images

Images constitute the vast majority of downloaded bytes on an average webpage. Optimising images makes them smaller and faster to load. This can deliver some of the easiest and largest performance improvements.



Optimise CSS

How you deliver CSS is vitally important. Before any browser can render content, it must first process the style and layout of information on the page. The browser will block rendering until external stylesheets are downloaded and processed.



Prioritise visible content

Visible content is the part of the page only a user can see. This is often referred to as 'above the fold.' Having this visible content loaded as soon as possible gives the perception of a fast-loading page, even if the remainder of the page is still loading. Google looks at this as one of the key indicators of pagespeed using its Largest Contentful Paint metric.



Remove render-blocking JavaScript

Before any browser can render a page, it must build the DOM tree by parsing the HTML markup. During this process, if the parser encounters a script it must stop and execute it before it can continue parsing the HTML.

Visible content is the part of the page only a user can see. This is often referred to as 'above the fold.' Having this visible content loaded as soon as possible gives the perception of a fast-loading page, even if the remainder of the page is still loading.



Summary

The value added by improving pagespeed is of enormous importance to UK retailers. COVID-19 has transformed the landscape of UK eCommerce. We're seeing interesting trends across most of the sector, with more customers switching purchase behaviour: spending more online amid a growing reluctance to shop in-store.⁹

As a result of the pandemic, we now shop infrequently, buy more each trip and prefer to buy online and pick up in-store. More consumers shop online than ever before. The ONS reported that online sales now equate to a third of all retail sales, a record high.

Our live data shows the wide range of performance across numerous sectors in retail, which is an indication of room for improvement in some quarters. **If your site doesn't currently appear on our live leaderboard at <https://dae.mn/pagespeed>, let us know and we'll add it in.**



Summary

Make every second count.

Implementing pagespeed improvements takes time, dedication and expertise, so we're offering a free Pagespeed Healthcheck.

At Daemon, we offer a holistic approach to dealing with website performance and turning pagespeed insights into actionable steps. Our dedicated team can provide guidance, support and structure to boost your existing site. The testing we do highlights inconsistencies in the market, so that we are able to offer solutions that drive results.

Talk to us today

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