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EXECUTIVE SUMMARY

Retailers are still struggling with digital. While many have made omnichannel, personalization, and customer experience top priorities for the last few years, most aren’t keeping up with consumer expectations.

In order to determine where retailers were falling short, Applause conducted a detailed assessment of the 2018 digital holiday season, and identified key areas for improvement. Our community of highly-vetted testers scored the functionality, user experience (UX), and omnichannel maturity of 52 top global retailers, evaluating their successes and failures during the season.

In total, Applause found more than 3,000 bugs in production, and many of these were serious enough to leave hundreds of millions in revenue on the table. Issues ranged from functional errors to poor search relevancy and slow website speeds. With so many errors in production, it’s clear that retailers still need to stabilize their digital properties to meet the high bar set by category leaders.

To further understand the issue on a global scale, Applause also compared the digital experiences of retailers across the United States, United Kingdom, and Germany. Each country was judged based on a maximum score of 10: five points for functional stability and five for UX.
optimization. In the end, the U.S. received the highest UX score, Germany had the fewest bugs, and the U.K. was the weakest across the board.

Retailers struggled in similar ways across the globe. Not surprisingly, buggy websites or brands that lacked key features had poor UX scores. Meanwhile, those with stable code and more features were favorably judged.

Retailers that want to meet digital expectations must identify customer pain points and strive to improve the experience. This report reviews the bugs and usability errors of 52 retailers over the last holiday season, the impact of those findings, and recommendations brands can deploy to improve their experiences in 2019.

**Digital Maturity Comparison: United States, Germany, and the United Kingdom**

*Based out of a maximum score of 10*

- **United States**
  - The U.S. was strongest in UX but had more software bugs than Germany, with many minor bugs in its advanced functionality.
  - Score: 7.8

- **Germany**
  - Germany was strong in functionality but didn’t offer robust features. Germany was also weak in UX, had the lowest score for mobile apps, and some key features were missing.
  - Score: 7.4

- **United Kingdom**
  - The U.K. offered robust features but struggled with both UX and functionality, particularly when it came to product pages and mobile apps.
  - Score: 6.6
**THE COST OF A BUG**

Applause discovered more than 3,000 bugs across 52 of the top retail ecommerce sites. But not all bugs are created equal. While some may simply annoy users and negatively influence their experience, others can be catastrophic and block transactions completely.

**We Broke Out the Bugs Into Three Key Classifications:**

**Blockers**

The most disruptive bugs are blockers, which prohibit a user from completing the intended transaction for 14 days. Problems with payment methods or other major errors in the shopping cart, for example, prevented shoppers from making a purchase.

**Delayers**

These errors do not entirely block a consumer’s intended transaction but delay the transaction or checkout process by at least three seconds. Delayers prevent only an estimated 7% of comparable transaction scenarios from converting to sales when they remain in production for 30 days. For example, errors with search may delay purchases by making products hard to find.

**Non-impacting**

These bugs did not impact the buying or transaction process and were excluded from our cost calculations. Even though they weren’t counted toward the total, non-impacting bugs, like broken links and graphics not formatting correctly, can shake customer confidence and will add up to become more costly over time if they are too frequent.

Focusing on 10 of the top U.S. retailers, we found more than $60 million in holiday season sales were lost because of just 65 high-severity bugs that were classified as either blockers or delayers. On average, each of these bugs cost $915,240 during the holiday season.

Escaped bugs are a major drain on revenues. Retailers may think test automation will save them from these million-dollar mistakes, but if they’re not conducting exploratory testing in the real world they may never know what is delaying or derailing purchases.
What are bugs costing you?

$60,336,952

Was potentially lost during the holiday season due to errors. Just a single severe bug can cost you almost $1 million dollars.

How the Costs Were Calculated

We estimated domestic daily online sales using financial information from SEC reports. Most retailers reported a specific amount or a percentage of net sales attributed to online sales. Net sales for December 2018 were then estimated using comparable sales from 2017 multiplied by the growth rate of net sales between 2016 and 2017.

We then calculated the frequency of a particular purchase scenario across all consumers based on the product types offered by retailers. We found what percentage of online purchases follow each specific customer journey scenario included in our report. This value was represented as a percentage of online sales with an average of 0.5% in our sample.
THE HOLIDAY SHOPPING SEASON

The 2018 holiday season was one for the record books with Cyber Monday setting a single-day record for online sales and Black Friday ecommerce sales up nearly 24% over 2017. As shoppers turn more to digital channels, it is more important than ever that retailers refine and optimize their ecommerce strategies. According to US Census data, ecommerce is growing nearly five times faster than in-store retail, so retailers that haven’t fully embraced digital should start while there is still time.

Where to Find Multimillion Dollar Bugs

Despite best-laid plans, many retailers struggle with digital. From Black Friday and Cyber Monday through December, Applause found more than 3,000 bugs across 52 ecommerce giants, most of which remained in production throughout the holiday season.

Fifty-three percent of the bugs Applause found were potential delayers, and the most dangerous ones were found in the shopping cart, product pages, and account pages.

Types of Bugs Found During Holiday Shopping

<table>
<thead>
<tr>
<th>Purchase Intent</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cart</td>
<td>33%</td>
</tr>
<tr>
<td>Product Page</td>
<td>20%</td>
</tr>
<tr>
<td>Account</td>
<td>53%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Search</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homepage Search</td>
<td>19%</td>
</tr>
<tr>
<td>Deals</td>
<td>6%</td>
</tr>
<tr>
<td>Search &amp; Catalog</td>
<td>31%</td>
</tr>
<tr>
<td>Reviews</td>
<td>3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company &amp; Customer Services</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store Locator</td>
<td>16%</td>
</tr>
<tr>
<td>Company Service</td>
<td>7%</td>
</tr>
<tr>
<td>Customer Service</td>
<td>7%</td>
</tr>
<tr>
<td>Shipping &amp; Returns</td>
<td>7%</td>
</tr>
</tbody>
</table>
Even Minor Bugs Can Cause Major Damage

According to Entrepreneur, just a four-second delay will drive away 40% of consumers, and bugs that occur in the purchasing stage could cost millions in lost revenues.

Consumers are quite cautious with ecommerce purchases. With numerous high-profile data breaches in recent years, even a minor bug may stoke a consumer’s fears about privacy or security. It’s often enough to convince them to abandon a shopping cart and head to a more stable competitor. Mobile expectations are even higher, as 85% of consumers are likely to drop a brand entirely if they encounter a poor mobile experience.

Software bugs slowly eat away at revenues in ways that aren’t always apparent. Users that encounter a missing photo, broken link, or mislabeled product will be annoyed, and a bit of brand equity will diminish. And when minor bugs occur in the shopping cart, product page, or account page, even more credibility is lost.

Tester Insight

“When I applied filters to the product search, it led to a 404 page.”
Chicago, Illinois

Tester Insight

“I couldn’t apply a new credit card on the account page. I already had an account with [retailer], but my old card expired and I can’t get the new one to save.”
Dortmund, Germany
UX Expectations Are Higher Than You Think

Ecommerce heavy-hitters like Amazon were a constant presence in Applause’s user feedback surveys. Due to Amazon’s scale and retail dominance, many consumers now expect all retailers to offer things like personalized recommendations and two-day shipping.

As Digitalist Magazine recently noted, “Amazon has set the bar high for competitors and has changed the retail space. The current trend in the retail industry is to make sure that the customer experience is as seamlessly convenient as possible. If organizations do not adapt their business models and incorporate these technologies, they will lose even more business to Amazon.”

So where did global retailers fall short? Users said retailers need significant improvements around search, product pages and checkout. Many complained about slow websites, the strain on available inventory, and unclear eligibility of sale prices on products. They also found shortcomings in basic functionalities like filtering, tracking numbers, and product details.
Search Results and Product Pages Failed to Meet Customer Expectations

Many customers struggled to find the products they were looking for because search results were either inaccurate or irrelevant. In many cases, product pages lacked key information that made purchasing decisions difficult for shoppers.

“Only 50% of my search results were relevant. I felt that too many suggested items were duplicate, redundant, or simply off-brand versions of the same item.”

“There is no sorting functionality. I wanted to sort items by price low to high and could never do that. It was very inconvenient.”

Shopping Cart and Checkout Processes Left Customers Confused

Shipping and tracking were major points of concern for shoppers. Many weren’t sure when their packages would arrive and couldn’t tell if their orders had processed correctly. Shoppers were also confused when retailers didn’t offer a consistent brand across all digital experiences.

“I shopped on my phone, put things into my cart, and then moved to my laptop to see the details, but it disappeared. I was even logged into my account!”

“When I bought the product, I got an email that it will take 14 days to ship it to me. Christmas is coming – I should have been warned ahead of time!”

Digital missteps such as these may not be readily apparent to the software development teams that created them, but they become quite obvious when users experience these flaws first hand. Testing and validation are crucial in revealing these hidden flaws that will disrupt the customer experience – and possibly chase the customer right into the arms of a welcoming competitor.
KEY AREAS TO IMPROVE FOR 2019

Clear Sale Eligibility
Eligible sale products aren’t clearly defined until they’re in the shopping cart

Clear Loyalty Benefits
Loyalty programs lack key benefits like free or rapid shipping

Inventory Availability
Items are available during the browsing process but are out-of-stock during checkout

Guaranteed Delivery
Shipping information is unclear, unspecified, or shipments don’t arrive in time for the holidays

Speed of Website
Peak shopping times and increased site traffic slow down customer journeys

Relevance of Search Results
Search results are irrelevant to Black Friday, or aren’t personalized and localized to shoppers
“It’s really the big weekend of the year for us – it kicks off an exciting holiday season, so I’ll be out there with our team... It’s really an important time to connect with our guests, the consumers.”

– Brian Cornell,
CEO of Target

Source: CBSNews
RETAIL QUALITY MATURITY: US vs UK vs GERMANY

Applause calculated the ecommerce maturity of the United States, United Kingdom and Germany based on an assessment of the top 10 retailers in each country. The team analyzed the retailers based on the number of functional errors in production and UX scores from real consumers in each country. Retailers could earn a maximum score of 5 for each category – adding up to a final score out of 10.
United Kingdom Trails in Ecommerce Quality

The United Kingdom lags behind the United States and Germany in both functional performance and UX scores.

United States

- Functional: 4.0
- UX: 3.8
- Total: 7.8

Germany

- Functional: 4.2
- UX: 3.2
- Total: 7.4

United Kingdom

- Functional: 3.5
- UX: 3.1
- Total: 6.6

Functional Errors Plagued Each Country

More than 3,000 bugs were found by Applause during the shopping season and they impacted both the UX and functional scores in all three countries. The United Kingdom had the highest percentage of bugs at 45%, followed by the United States at 32% and Germany at 23%.

Over half (53%) of all bugs found were classified as severe – potential delayers or blockers. These bugs significantly impacted the functionality of a website, potentially discouraging customers from completing a purchase.

The testing process resulted in some positive and negative takeaways about how each country fared individually. Germany stood out positively as the country with the fewest bugs, with just 23% of the total found. As the country is notoriously strict about data privacy, German retailers offer less complex and personalized experiences, which decreases the overall risk of bugs.

The data suggests this reluctance might not only be based on legislative restrictions, but also on cultural characteristics and preferences. While U.S. and U.K. clients are more attracted to innovative and sophisticated designs that reflect personalized suggestions, German customers seem to adhere to what they know and trust. Poor user experiences cause wary German consumers to abandon their carts at a higher rate.
Severe Bugs Impacted the Buying Process in All Countries

The U.K. and U.S. both had largely the same level of functionality built into their ecommerce sites and mobile apps, though the U.S. was able to score higher in both functionality and UX. The most notable finding was that U.S. online retailers tended to struggle with many aspects of website functionality. A few bad apples – websites that lagged far behind the pack in maturity and functionality – brought down the average overall score for the U.S.

The United Kingdom won the dubious distinction of generating the highest total bug count, accounting for nearly half (45%) of all the bugs found. In addition to some problems with general website functionality, U.K. sites struggled in particular with product and catalog pages. The bug count was relatively high for all retailers in the U.K., and one company raised the average even further with an incredibly high bug total.

Percentage of Bugs Found by Category

All three countries struggled with functionality as it accounted for a high percentage of bugs found globally.
UX Will Make or Break Your Bottom Line

Applause usability experts completed user feedback surveys after making real purchases from the top 30 retailers across the U.S., U.K., and Germany. There were three areas our experts noted as primary focus points for improvement: product pages, cart checklist, and customer confidence.

Subpar user experiences in these areas can severely impact retailers' ability to attract and retain customers. Shoppers won't tolerate experiences that are glitchy or that don't make purchasing easy for them, particularly when it comes to product pages and the cart checklist. After all, if a shopper can't find the product they are looking for, or understand the prices, they can't complete the purchase.

Shipping Information Left Much to the Imagination

One common issue was that shipping and delivery information was often incomplete or non-existent, leaving customers unsure of the charges and when orders would arrive.

“It confirms eligibility for standard shipping but no longer defines what ‘standard’ is. I don’t know if I have to pay an additional shipping cost or how long it will take for my package to arrive.”

“I don’t know how much shipping I’ll have to pay. Unless I go to the checkout page, I don’t see any fees upfront.”

Too Many Clicks Were Required from Customers

Another issue was that customers were forced to click several times to add an item to their shopping cart. In some cases, they even had to navigate off the retail site to find the product information they needed.

“Adding an item to my shopping cart took four to five clicks depending on the product.”

“Many products only had one image shown on the website, so I had to image search them on other sites to make sure I knew what I was getting. It was very inconvenient and time-consuming.”
Shoppers’ Tolerance for Issues Varies by Type

While the U.S. and U.K. had their highest percentage of escaped bugs in functionality, users were generally happy with the UX of these areas as all countries received favorable feedback from testers regarding functionality. On the other hand, product pages were a weak spot for all countries in terms of both bugs found and user experience issues.

Germany, in particular, struggled with product pages. Thirty-one percent of bugs in Germany were in this area and product pages also fared poorly in user experience. Germany also had a bigger problem with bugs in cart checklists with nearly a quarter of all bugs occurring at this stage. The country also posted a below average UX score for cart checklists compared to its other areas.

The U.S. led the way in user experience overall, posting the highest scores in major categories like website functionality and cart checklist.

**U.S. Leads the Way in User Experience**
Buy Online, Return to Store

Buy online, return in store (BORIS) remains a crucial part of the omnichannel experience and there wasn’t much separation between the performance of the three countries.

In general, the testers enjoyed using the BORIS option and most would use it again. But there were still many shortcomings, and problems with communication occurred across the board.

Signage and information about how to return items were virtually non-existent while many retail associates seemed confused about the process themselves. They often provided incomplete or incorrect information about the product return process. And there were instances in stores where staff contradicted each other on whether or not a receipt was required for a return.

Tester Insight

“It would have been helpful to see a sign near the entrance indicating where to return items. Instead, I just walked until I found someone.”
Phoenix, Arizona

Communication Breakdowns Across Omnichannel

Online Information
Shoppers weren’t able to find any information on in-store returns on retailers’ websites.

Associate Preparedness
Store associates weren’t properly informed and either couldn’t help customers return items or gave them the wrong information completely.

In-Store Signage
Customers couldn’t find where to return items because no signage was available or easily visible within stores.

Return Confirmation
Shoppers were often unsure if returns were successful because receipts either weren’t given or weren’t sent in their preferred digital format.

Tester Insight

“It was very difficult to return the online item in the store. It took too long to find the right counter. It was also very busy and I was in the queue for half an hour.”
Dortmund, Germany
# Key Areas to Improve for 2019

<table>
<thead>
<tr>
<th>Mobile App Performance</th>
<th>Consistent Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile apps don’t make the searching or buying process easier and often only frustrate users</td>
<td>Recommendations are often inconsistent and not relevant by location, purchases, or interests</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fee and Shipping Transparency</th>
<th>In-Store Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers aren’t told about shipping fees or arrival times until after completing a purchase</td>
<td>Store associates are unprepared to handle omnichannel orders and direct customers through their journey</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Omnichannel Consistency</th>
<th>Speed to Checkout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store processes and associate instructions differ by location and individual, even when shopping with the same brand</td>
<td>Customers are forced to make several clicks before they can complete the checkout process</td>
</tr>
</tbody>
</table>
People like consistency. Whether it’s a store or a restaurant, they want to come in and see what you are famous for.”

– Mickey Drexler
CEO of J. Crew Group

Source: Slate Magazine
WHERE ARE RETAILERS STILL FALLING SHORT?

It’s clear that retailers are still struggling with the basics in 2019. In order to succeed, retailers around the globe need to make six key improvements in their strategy:
Experience the Whole Customer Journey as a User

Most retailers simply don't understand their end-to-end customer journey as their customers do, and they struggle to understand and identify their performance gaps. Throughout the study, Applause found several issues with continuity. One shopper even complained about trying to switch between devices, it just didn't work.

A seamless experience is more than a consistent brand design, it’s about maintaining the feel, functionality and customer engagement throughout the journey, regardless of channel. Retailers should deploy testers who can mimic the buyer journey, especially across key areas of frustration: relevant product search results, speedy checkout with limited number of clicks, and consistent recommendations based on previous purchases, location and interests.

Make Training a Priority

The majority of retailers have failed to adequately train their employees for the five key omnichannel plays: “buy online, pickup in store,” “buy online, return to store,” “ship from store,” “ship to store,” and “endless aisle.” Truthfully, it is a hard task to accomplish because store associates traditionally aren’t hired to deal with online orders, returns and fulfillment. Retailers must make training a priority to ensure orders are appropriately fulfilled and consistent across locations.

Retailers should deploy testers to go through a complete omnichannel purchase process – from digital to in-store – to get a sense of the experience. It is especially important to test during high-traffic times to determine if store associates can complete tasks, find items, direct customers, and answer questions correctly and consistently.

Test Devices, Payment Methods, and Locations

Quality is still king. More than $60 million in holiday season sales were potentially lost because of just 65 high-severity bugs across 10 stores. You’re at risk if you’re not validating your purchase process with exploratory testing. These bugs occurred for a variety of reasons but retailers must focus their efforts in the areas that will impact their bottom line the most: product pages, shopping cart, and account pages.

Without a complete understanding of what experiences will look like for customers across locations, devices, and payment types, retailers risk alienating shoppers. One buyer in Germany said: “I couldn't apply a new credit card on the account page. I already had an account with [retailer], but my old card expired and I can't get the new one to save.” You may not be able to reach every edge case imaginable, but testing in the wild on real devices with real people will virtually eliminate the errors that users often encounter in the real world.
Content Validation

Retailers can use relevant, localized and personalized content to influence users. Consumers want to understand how discounts and loyalty benefits will be applied at checkout, and they want to know they’re getting the best deal.

Retailers must turn to real-world testers to validate these experiences in-the-wild based on country, network, and preferences. Content validation is the only way to ensure the ecommerce algorithms are accurate, personalized, and localized so customers see only relevant products and information.

The user experience isn’t something that can be automated or tested in a lab. Effective testing requires a human touch and input from real customers who can say if results and offers are relevant. In addition, localization is more than just a one-to-one translation. Retailers must account for context and cultural norms along with translations to avoid misunderstandings and branding blunders. Key pain points reported by Applause testers were that inventory wasn’t always accurate, discounts were unclear and that recommendations weren’t relevant.

Put Customers at the Center of Development

Customers want to be in control, but retailers often struggle with putting the customer in the center of development. One problem is they often don’t have the data or analytical structure in place to completely understand the customer, leaving them to guess at what they want.
The best way to design digital experiences with customers in mind is to source feedback directly from the intended audience. This will not only identify what they want but help discover frustrations. For example, one Applause tester was frustrated when they couldn’t see the shipping arrivals early in the purchase process. And that’s a big deciding factor in holiday purchases.

Developing with your customer in mind will help you focus on these pain points from the start. By gaining this real-world feedback, retailers can understand and prepare for all parts of the customer journey and tailor experiences for customers from the outset.

**Make the Purchase Process Quick and Easy**

The fewer clicks it takes to get through a purchase process, the less likely it is a shopper will abandon their cart. While retailers say they understand the concept, our study discovered that many shoppers had to click upwards of five times to get through checkout.

To make purchasing as easy and straightforward as possible, retailers must understand the UX of their site from their customer’s perspective. They also should take into account usability best practices, such as the maximum number of acceptable clicks that will convert shoppers to customers and keep existing customers coming back for more.

**Tester Insight**

“I’m not able to continue paying for my order on my phone after selecting a nearby store.”  
Berlin, Germany

“*When I search via voice, the mobile app confuses recent searches. When I say ‘Shoes,’ it lists options. When I refine to ‘Boys Shoes,’ it adds this to the search and looks for ‘Shoes Boys Shoes.’*”  
London, U.K.
IS YOUR DIGITAL EXPERIENCE BULLETPROOF?

Find out how to improve the functionality, usability, and accessibility of your customer experiences...no matter where they take place.

LEARN MORE
About Applause

Applause is the worldwide leader in digital quality and crowdsourced testing. With highly-vetted testers available at any time around the globe, Applause provides retail brands with a full range of testing services including functional, usability, omnichannel, accessibility, and payments testing. Leading retailers like Walmart, Best Buy, CVS, and eBay rely on Applause as a best practice to deliver the digital and omnichannel experiences their customers love.

Using its industry-leading community to test experiences, Applause also creates research reports based on the top trends in technology and testing. To learn more about Applause and how it can help you avoid costly software bugs and usability mistakes, visit applause.com. To request more information about the report, its findings and methodology, contact pr@applause.com.