Online Retailers Struggle With Performance, Targeted Personalization, And Product Availability

retail TouchPoints®

Lucidworks

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Introduction

Personalization, performance, and product promotion are three of the key challenges digital commerce companies wrestle with. And all of these initiatives must consistently be measured against an engaging customer experience (CX). With customers punishing brands who provide poor experiences, what are the efforts that go into that wrestling — and how do they measure up to what other firms are doing? To find these answers, Lucidworks commissioned *Retail TouchPoints* to survey companies doing $100 million or more in sales.

The following analysis is predicated on a few assumptions:

Ecommerce retailers know that optimal website performance is critical to their success — whether it's during high-volume selling periods around the holidays or average days when customers are browsing, comparing, and buying routine items. Online retailers' ability to optimize and make inventory available quickly and efficiently is crucial to avoiding out-of-stocks, lost sales, and disappointed shoppers.

Understanding shopper intent, so retailers can lead visitors to the right product pages and content — and sometimes the physical store — can mean the difference between success and failure. Additionally, retailers that are able to leverage true personalization — for example, by making product recommendations that align with shoppers' needs and inspire them to make additional purchases — can boost their add-to-cart (ATC) percentage while also enhancing customer satisfaction.

The following is the result of surveying 123 participants who fit the above criteria.

Performance, Product Findability, CX Top Etailers' Concerns

Downtime and degraded performance of a retailer's website damage the customer experience, which is why almost three-quarters **(73%)** of retailer respondents say site downtime, degraded site performance, and poor customer experience, collectively, is their biggest worry (and the top pain point) when it happens during peak demand times. Stockouts that result from failure to update inventory is a close second at **69%**. The problem of undiscoverable products is also important, ranking third at **49%**, with checkout slowdowns right behind at **48%** of survey participants.

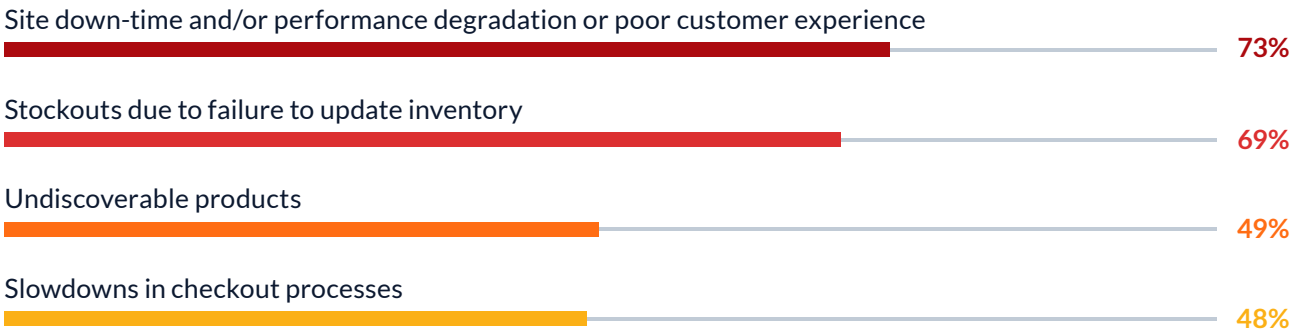
Retailers' ability to update product catalogs in near-real-time, access real-time inventory information, and push it out to their ecommerce sites are vital key performance indicators (KPIs), but timely inventory updates remain a challenge. Modern technology that enables agility in product management should allow retailers to have their entire index up and running from scratch in about 30 minutes, but more than half **(~53%)** of retailers report that they require up to 24 hours or more to make a new catalog item available to be sold online. This includes **8%** of respondents who said that they need more than 24 hours. An entrenched legacy infrastructure may be one culprit behind the longer lead times, and such delays create an untold number of missed opportunities for time-sensitive trends.

However, an almost equal portion of retailers is closing the time gap. Close to half **(47%)** of respondents say items are available for customers to find in two hours or less, including **21%** that can update catalogs instantaneously.

Broken down by organizational size, the survey shows that the larger the company, the more difficulty it has in updating items within 24 hours, suggesting those companies have large clusters, large numbers of Sales Keeping Units (SKUs), and/or large volumes of queries to support.

Concerns about stockouts related to lags in inventory updates are well founded, particularly for retailers trying to maintain or grow their position in an increasingly crowded marketplace. Research from IHL Group shows that as much as **24%** of Amazon's retail sales can be attributed to customers who first tried to purchase an item elsewhere but found it out of stock at their local stores. One brand's loss is another's gain, and maintaining near-real-time inventory availability — and integrating that data into search and discovery for online customers — is becoming a key differentiator.

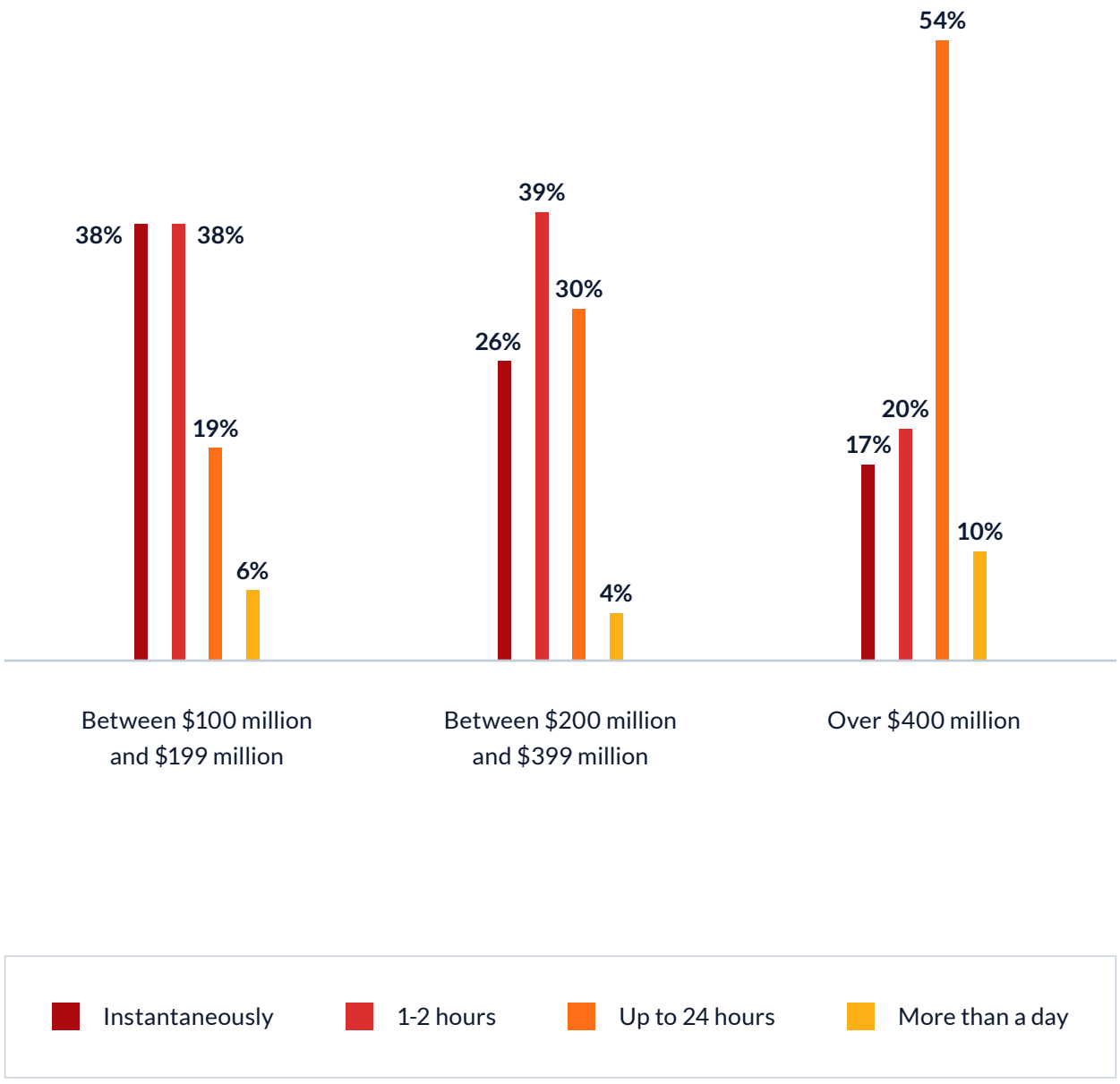
During times of peak demand, what are your biggest worries/pain points?



What is the length of time from when you add items into the catalog to when they are available for customers to find?

What is the length of time from when you add items into the catalog to when they are available for customers to find?

Answers broken down by total revenue.

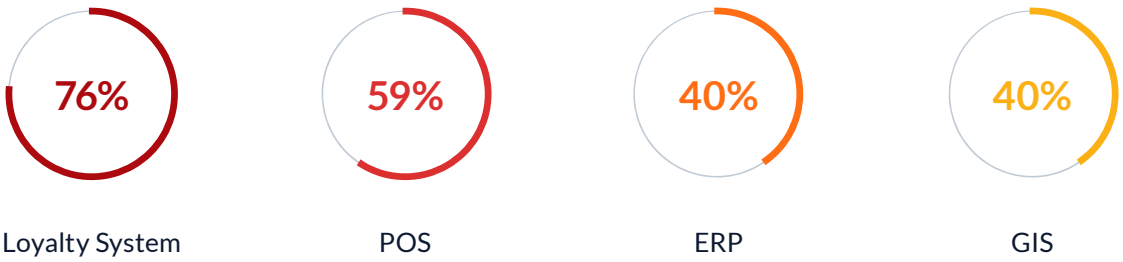


Data integration continues to be a driving factor for retailers as they seek to get a more holistic view of customers and present them with the items they want to see. Loyalty systems, which provide first-party customer data across channels, are by far the most common data source brands utilize as part of their stack **(76%)**. Point-of-sale (POS) data is a distant second at **59%**.

Tied for third are Enterprise Resource Planning (ERP) data and Geographic Information System (GIS) technology, both at **40%**. ERP integration could include data from any number of internal systems, from sales and marketing to transportation, so it's not apparent from the survey how retailers are using it.

The surprise here is GIS data. GIS data creates a bridge between the online and brick-and-mortar worlds by recognizing the location of an individual, even though that person might not be personally identifiable. Brands can use this information to merchandise products that befit the climate and culture. For example, to highlight cold weather products in cold locales or lead with merchandise that represents the local sports teams.

Besides your product catalogs, which other data sources are integrated into your stack?



Predicting Shopper Intent: Are Retailers Using The Right Tools?

Retailers express strong confidence in their ability to predict shopper intent — grading themselves an average score of 4 on a scale of 1 to 5. However, many are failing to use the sophisticated tools that would support this level of confidence. Only two-thirds **(67%)** collect customer feedback signals, and just 48% use artificial intelligence (AI) for query intent detection. The most sophisticated etailers are collecting signals and using AI-powered tools to then optimize and update the experience according to those who know their customers best, the company itself.

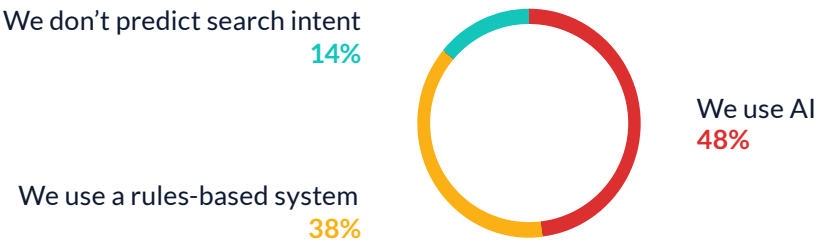
The use of AI for search intent shows good adoption at **48%**. Given that terminology and understanding around AI is evolving, though, it's possible that some number of retailers leverage a combination of rules-based systems and machine learning (ML) rather than using one technology exclusively. In addition, AI technology is itself advancing quickly, meaning companies that haven't recently evaluated solutions using AI may be surprised to learn about new or expanded features that could help them better predict shopper intent.

A cross-tabulation of participants shows that AI-based systems are dominated by companies doing more than $400 million in revenue. The **14%** of respondents not predicting the customer's intent in search leans toward smaller enterprises with less than $200 million in revenue.

On a scale from 1-5, how well do you feel you're able to predict shopper intent?

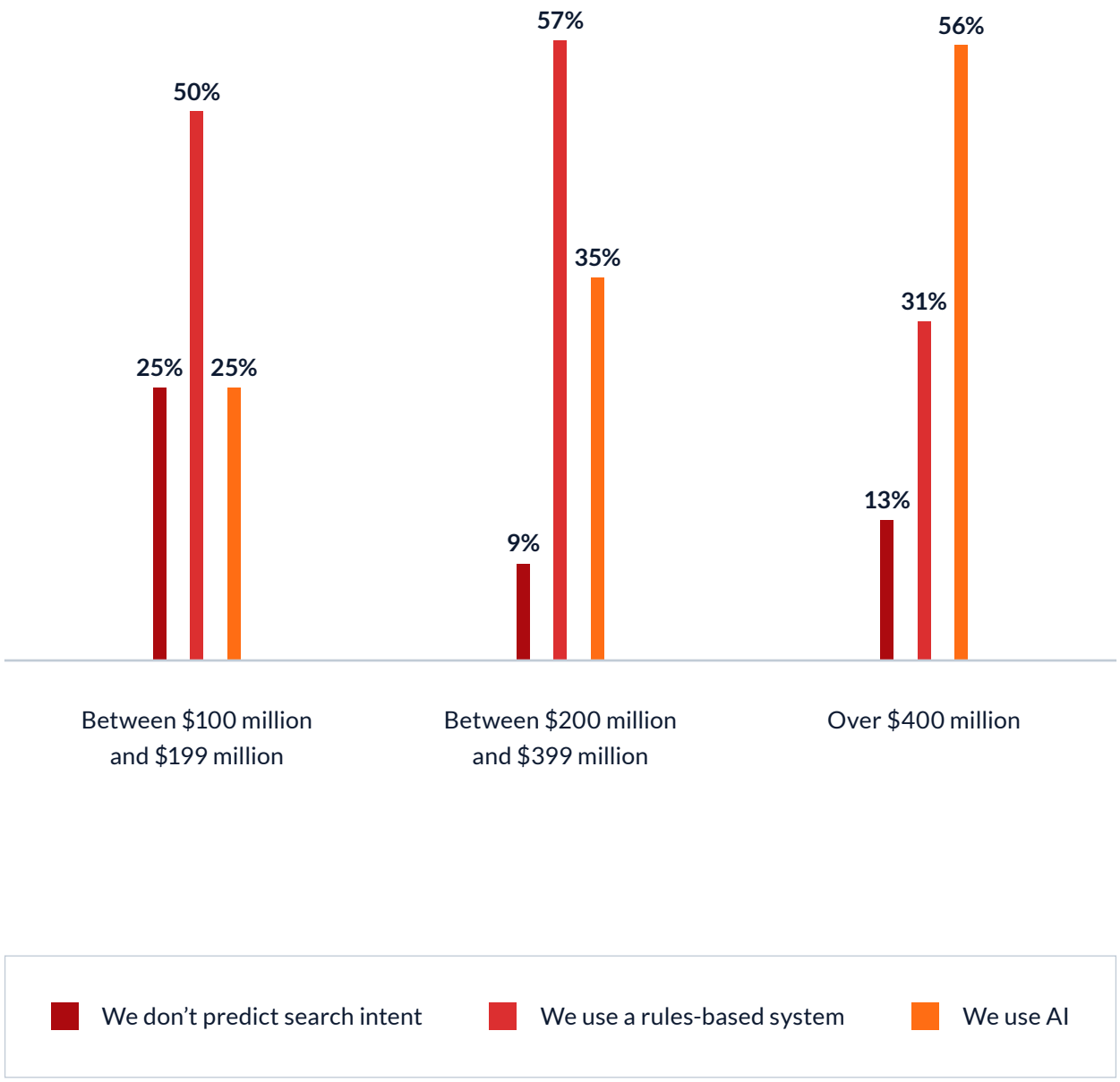
Average: 4

How does your company predict the intent of a search?



How does your company predict the intent of a search?

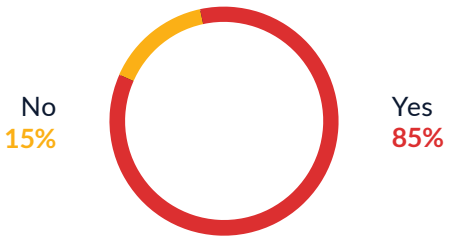
Answers broken down by total revenue.



The use of A/B testing, though high at **85%**, leaves room for improvement simply because of its importance in the performance of any search system. By finding ways to drive down the cost of experimentation, brands can — and in most cases, should — run more A/B testing scenarios.

Retailers that are winning in search have a data-driven mindset, and the more they can add to the data available for analysis through A/B experimentation, the better. According to Grant Ingersoll, CTO at Lucidworks, it is not unusual for leading retailers to run thousands of experiments annually.

Do you use A/B testing to tune the relevance of your search results?

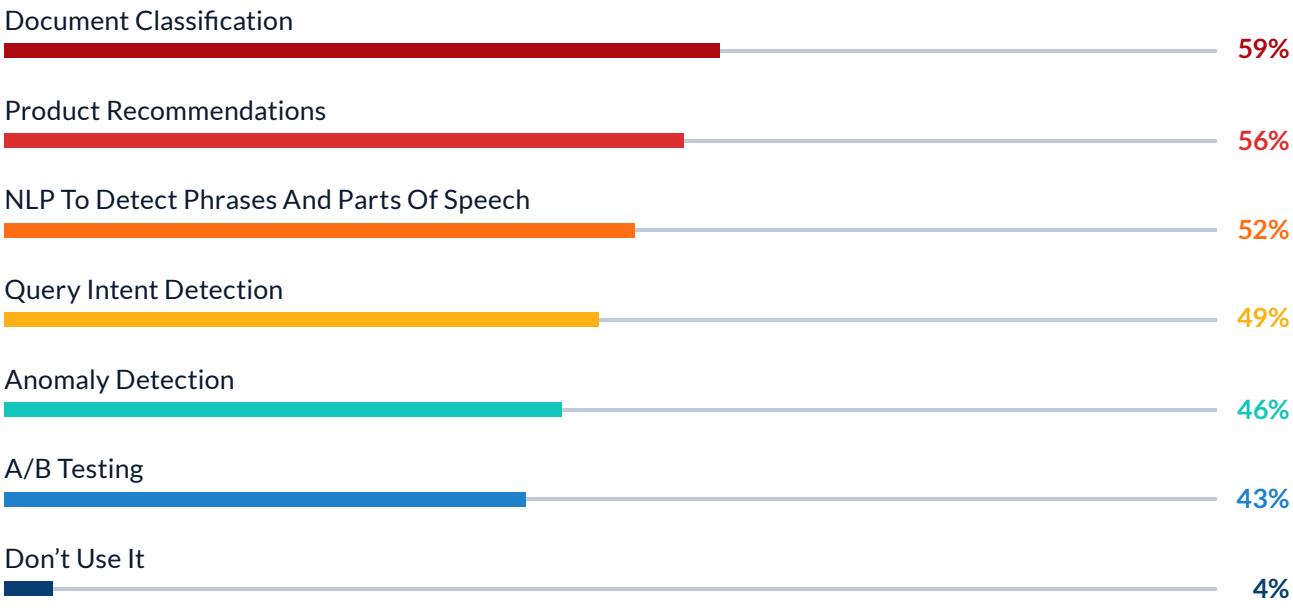


AI and ML are seeing much more widespread use in retail, with brands deploying them across multiple areas to varying degrees.

When asked how they use AI and ML to power the customer experience, retailers say documentation classification, assigning an item to a specific category to make it more easily discoverable, is currently the most common usage **(59%)**, with product recommendations trailing by only a small margin at **56%**. Natural language processing (NLP) takes third place with **52%** response as companies seek to improve the customer experience by better detecting key phrases and terms.

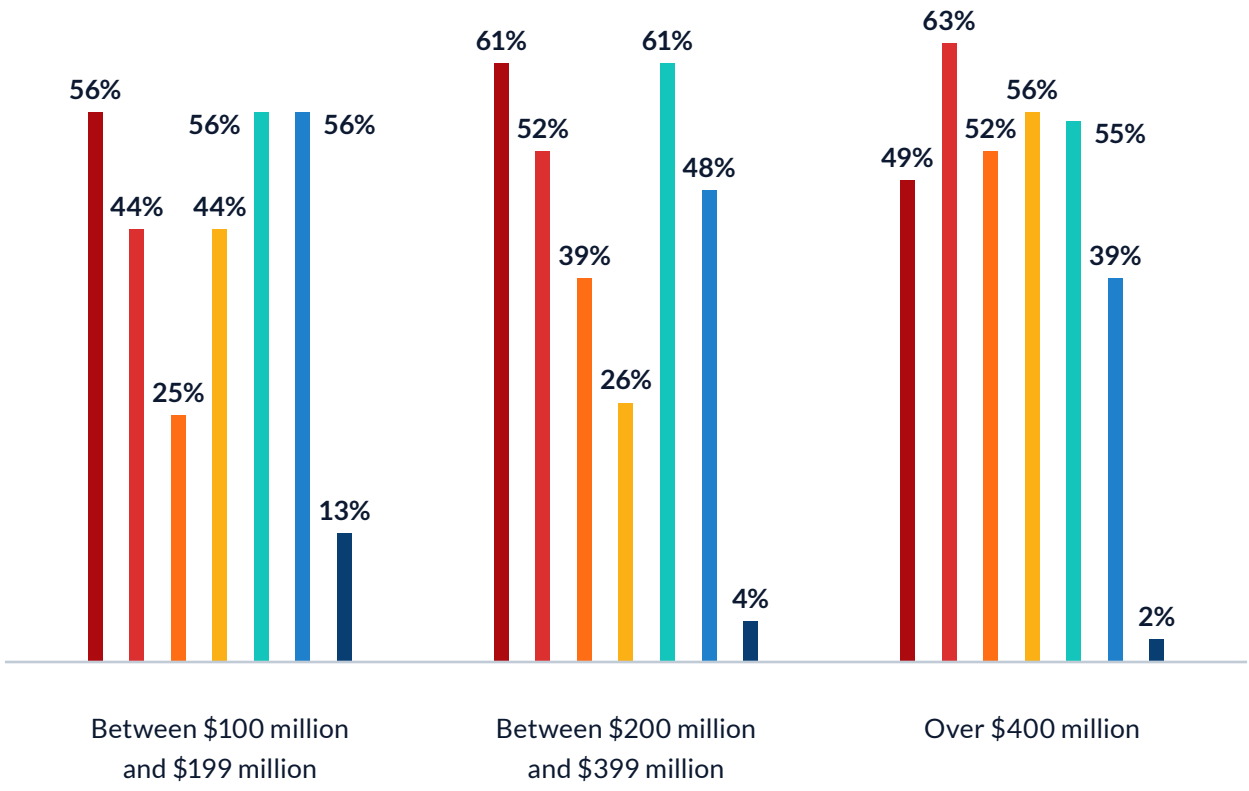
Retailers employing anomaly detection are approaching half of respondents at **46%**, indicating that these companies are actively seeking events or noise that differ from the preponderance of the data set. Broadly, anomaly detection looks for outliers in time series data. These alerts give merchandisers and marketers a heads up that a trend is being detected. This allows merchandisers to see if proper stock is available and adjust campaigns accordingly. From the chart on page 11, we see that larger organizations are adopting at a higher rate.

Select all the ways you use AI/ML to power the customer experience:



Select all the ways you use AI/ML to power the customer experience:

Answers broken down by total revenue.



Retailers are expected to expand their plans for AI and ML in the near term. Research from IHL Group reveals that **91%** of retailers said they were increasing AI spending for customer-facing applications. In 2019 alone, **52%** listed AI as a top priority for budget increases.

Opportunities to excel in the use of AI as part of search and discovery exist in the NLP realm in particular, where phrase detection can be paired with sentiment analysis. There are two types of NLP that could be involved, either grammar-based NLP, which leverages a strong thesaurus, or natural language understanding based on deep learning, which is able to self-learn as it processes more and more examples.

With the rapidly growing use of voice interfaces, consumers are becoming used to asking questions more naturally. This habit is changing their text-based search habits, as well, with searchers asking direct questions rather than relying on a string of keywords to get the best search results. Although image search in retail is not as advanced as voice-powered search, it is expected to be rapidly adopted, especially for the discovery of fashion, luxury items, furniture, and home goods with strong visual components.

With Personalization, There's More Work To Be Done

Personalization may be an overly broad term in retail, but retailers are gradually implementing technologies that will deliver a more individualized or *hyper-personalized* experience. When it comes to search, different customers have different preferences for how they like to find products. A majority of retailers **(73%)** allow customers to filter products by product types or categories, which can be helpful to consumers who are not sure which items in the classification best suit their needs. **Sixty-nine percent** of retailers are automatically providing shoppers with recommendations based on similar customers' activity, a feature popularized by Netflix and Amazon that consumers have come to expect.

Allowing customers to create product wish lists, as **65%** of respondents do, is a manual version of one-on-one personalization that is increasingly expected by customers.

Which online/ecommerce personalization capabilities do you use?

True personalization in search — moving beyond segmentation or cohort analysis, for example, and getting down to customer-level data — is still at fingertip distance, though brands may be closing the gap. Signal data provides instantaneous feedback — what a person clicked on, what they did not, what they put in their cart, what they purchased. Previously used search terms or phrases, combined with purchase history and any other data on that specific customer, will help retailers deliver an experience that brings sales, support, and service into a seamless shopper engagement continuum. All of this, including buying history, can be factored into creating that hyper-personalized experience.

Eliminating the search "noise" that isn't relevant to personalization — such as non-typical purchases made as gifts for someone else — will continue to be a challenge. Even mega-brands that are known to set a high bar on customer experience still encounter problems sifting out the noise where search is concerned. As AI is deployed to greater effect, displaying results and recommendations that reflect the customer's own preferences will improve, but retailers should still maintain awareness of this potential gap.

The majority of shoppers **(60%)** visit a site up to four times before making a purchase. The remainder make five visits or more before they finally buy. Using the power of AI to provide more targeted search results and recommendations can help move customers along the shopping journey more effectively. How many times has the visitor viewed a particular product? How expensive is the item? Are they a long-time customer? Does their search history show multiple searches for similar items or did they go straight for this one?

The answers will point to their search intent and better inform additional recommendations, information on services and support options, and links to complementary items. Without this granular insight, retailers might move the customer into the "buy" workflow too quickly and miss opportunities for upsells and cross-sells. Ultimately, the success rate comes back to A/B testing and finding out what works best for the brand's site and customer demographics.

On average, how many visits do shoppers make prior to purchase?

Survey respondents' add-to-cart (ATC) percentages are generally quite good, with **47%** of retailers saying their ATC is between 11% and 15% and another **28%** averaging 5% to 10%. Almost one-quarter **(23%)** say their ATC is in the top tier at more than **15%**. Click-through-rate (CTR) averages have a similar spread. The largest group **(42%)** have a CTR of 16% to 25%. Almost one-third **(31%)** say their average is above that.

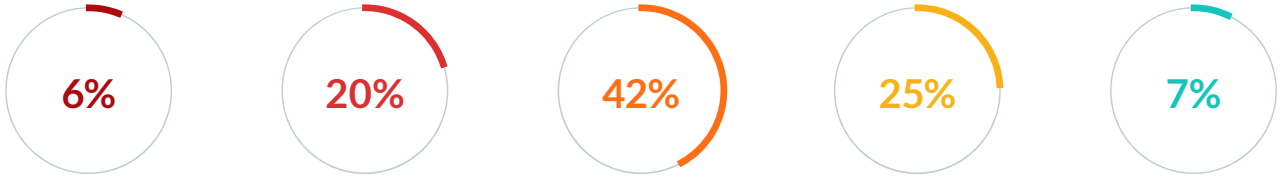
We focused on CTR (the percent of searches that lead to a product detail page) to remind readers that nearly a third of all customers start at the search bar. But nearly 80% of these people will not find what they are looking for — and will abandon the site. Further, research shows that when a website search is used, conversion rates average 4.63% instead of 2.77%. Participants of all sizes can and should look to increase CTR. By doing so, merchandisers can begin to fine tune the search experience, so that customers stay and conversions are increased.

To become a differentiator, search needs personalization that can add meaningful data beyond base-level keyword matching. Today's best-in-class retailers have a more holistic view of all the factors that go into search, and relevance, discovery, product recommendations, and query intent are all are pieces of the same puzzle. Data must include prior search histories, including user signals. ML capabilities enable brands to factor all of those different components in the development of a per-user, per-point-in-time view of relevance to boost ATC and CTR.

What is your ATC percentage?

Less Than 5% | 5%-10% | 11%-15% | More Than 15%

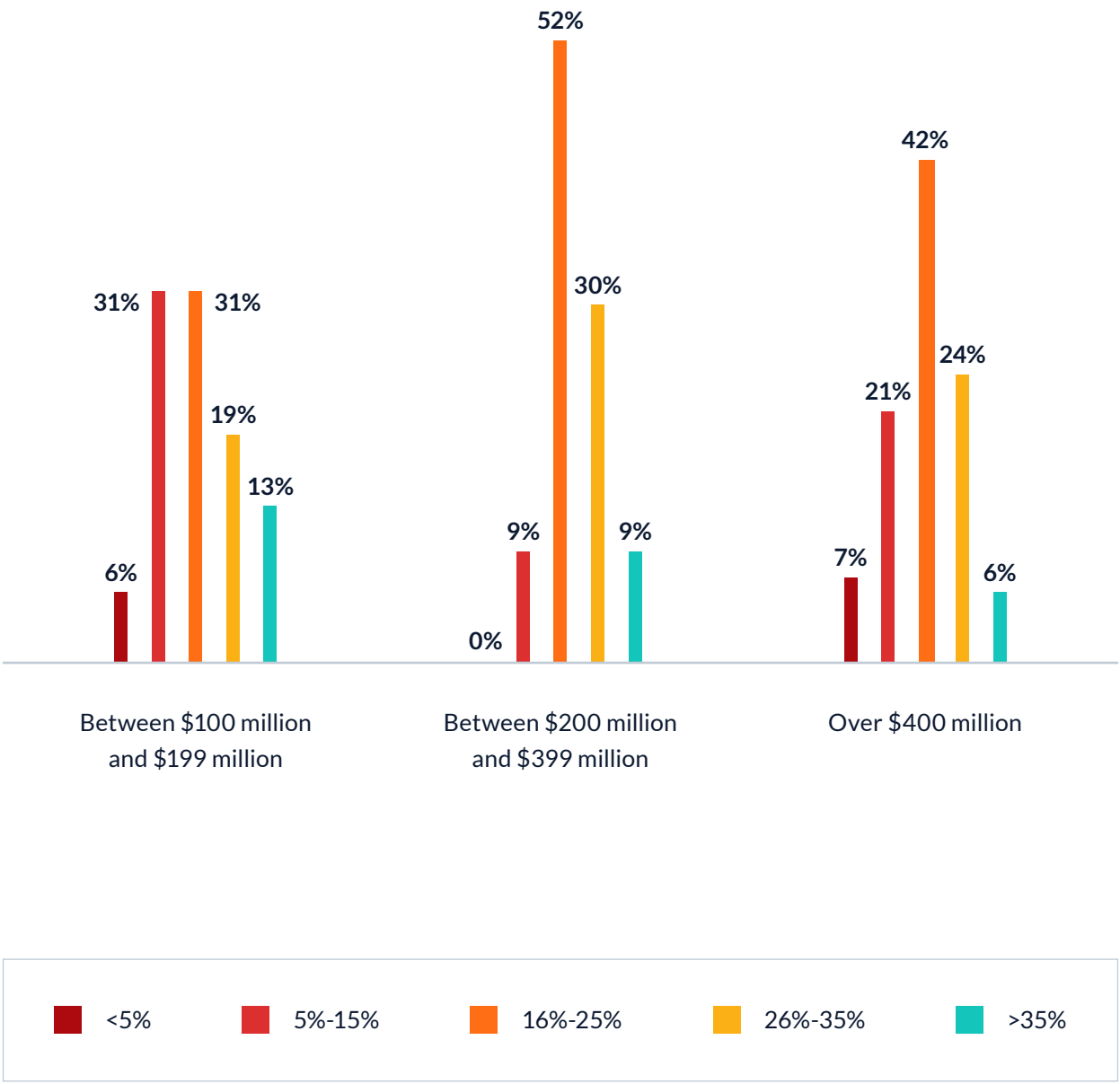
What is your average CTR percentage?



<5% | 5%-15% | 16%-25% | 26%-35% | >35%

What is your average CTR percentage?

Answers broken down by total revenue.



Conclusion

Site performance, catalog updates, and search are essentials of ecommerce. Retailers can't afford to rely on years-old practices without reviewing and updating all three in an increasingly competitive marketplace. Brands must differentiate themselves using every touch point available to them. The right investments will enable retailers to show shoppers not only the products they have come to their sites to find, but also complementary items that improve the customer experience. These add-ons also increase retail revenue.

Retailers increasingly are seeing the value of AI and ML as part of that process. Discoverability hinges on more than simply having a product in the catalog. Items must be available to be viewed through the search platform, and visitors must be able to locate their desired items quickly, without digging through a lot of irrelevant offerings in the process. An annual study by Forrester revealed that AI was among the top investment priorities for retailers in 2019, along with personalization, and advanced data and analytics. The playing field will become more difficult as retailers deploying AI up the game for everyone else.

But with so many brands working to capture market share, simply putting dollars toward AI-powered solutions to harvest and utilize data won't be enough. In its research into how the retail industry is adapting to shifting consumer expectations and behaviors, management consulting firm A.T. Kearney determined that companies rely on data gathering as one strategy to build a competitive advantage, but noted that "few seem to be truly separating from the pack" in the endeavor.

In today's always-connected shopping environment, online and in-store sales — along with the services, upselling opportunities, and engagement touch points that accompany those journeys — are heavily influenced by search performance and product discoverability. AI and ML enable retailers to become experts in those components, driving better digital experiences for customers and improved revenue for the brand.

Lucidworks

Lucidworks builds AI-powered search solutions for many of the world's largest brands. Fusion, Lucidworks' advanced development platform, provides the enterprise-grade capabilities needed to design, develop, and deploy intelligent search applications at any scale. Companies across all industries, from consumer retail and healthcare to insurance and financial services, rely on Lucidworks every day to power their consumer-facing and enterprise search apps. Lucidworks customers include Red Hat, Lenovo, Bluestem, Goop, and four of the top five home improvement stores to name a few. Learn more at Lucidworks.com.

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