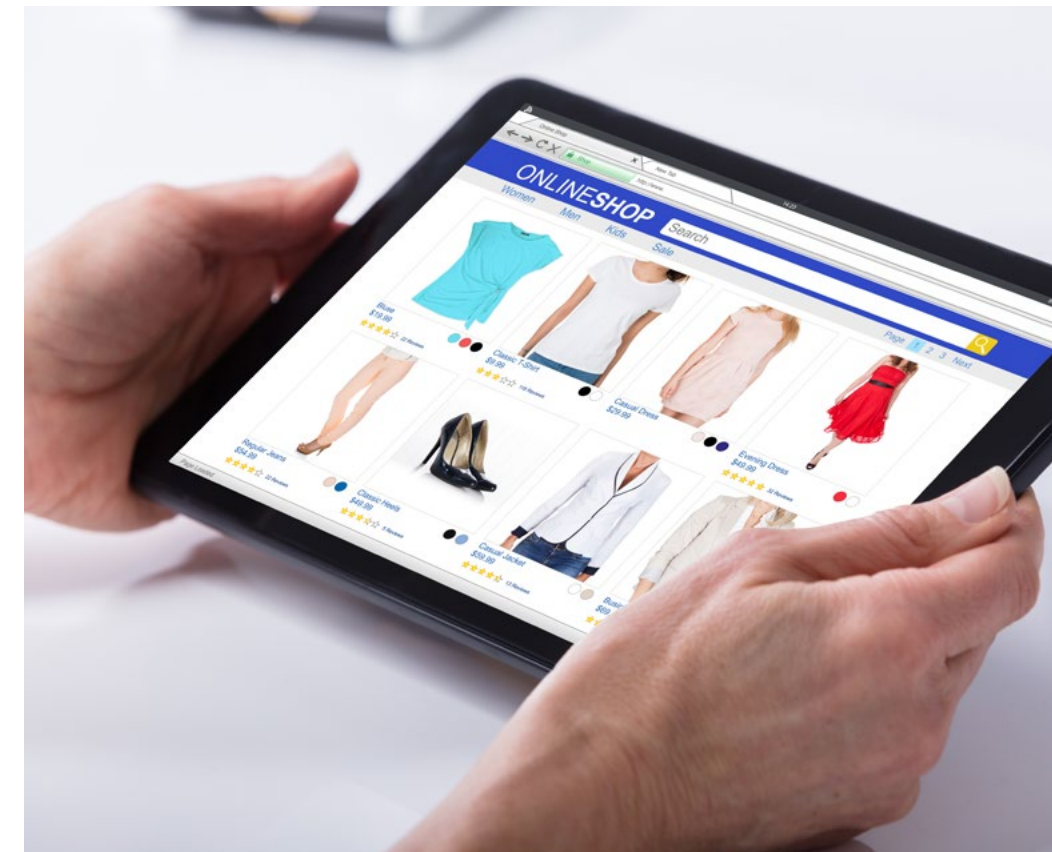


Commerce Connected

Playbook

Retail Innovation Edition

MARCH 2020



PYMNTS.com

First Data
IS NOW
fiserv.



The PYMNTS Commerce Connected series, in partnership with First Data, now Fiserv, gives readers an overview of the latest developments, data and trends from around the connected commerce space. The Playbook will follow along as new tools connect retailers with consumers, gauge how merchants drive in-store and online conversions, cover connected commerce players' major news and trends and present the latest data on shifting consumer behaviors and preferences. Each edition will also include a data-driven deep dive into various retail segments and industries.





Commerce Connected

Playbook

Executive Summary	01
By the Numbers	07
Feature Story	09
Headlines	
Engagement and retention	15
Regulation and compliance	19
Transact	21
Protect	23
Analyze	25
Deep Dive	27

The Commerce Connected series was done in collaboration with First Data, now Fiserv, and PYMNTS is grateful for the company's support and insight. [PYMNTS.com](https://pymnts.com) retains full editorial control over the following findings, methodology and data analysis.

Executive Summary

The retail industry must keep up with consumers' shifting whims as to where and how they prefer to shop, as proven by the rise of mobile shopping and eCommerce. New and different preferences will also likely emerge as the retail space quickly adopts technologies such as cashless payments, mobile wallets and virtual reality (VR). These offerings continue to capture merchants' and consumers' attention, prompting even traditional retailers operating brick-and-mortar stores to upgrade how they display goods and engage with customers. [Research](#) suggests that physical stores will still play significant roles in retail's future, yet such experiences are rapidly transforming.

Retailers must manage seamless customer experiences in three channels: brick-and-mortar, mobile shopping and eCommerce. Brick-and-mortar stores are unlikely to reclaim their primacy as long as same-day delivery exists, but in-store shopping still fills a void that online and mobile browsing have yet to replace. Physical stores remain an active part of retail, with data from financial services technology provider Fiserv finding that spending at brick-and-mortar locations [grew](#) 4.2 percent year-over-year in 2019. This spending is not primarily driven by consumers in older age brackets, either. Another [survey](#) finds that younger shoppers are leading the charge, with 81 percent of Gen Z consumers preferring to shop in stores.



Retailers should therefore continue to prioritize brick-and-mortar retail and must give it the same careful consideration as mobile and online shopping. It is not enough for retailers to simply manage distinct shopping channels, as each must cooperate so firms can personalize consumer support no matter where customers browse or make purchases. Global commerce gives consumers more choices than ever, prompting brands' platforms to appeal to the "segment of one," or each individual consumer, on a mass scale. Merchants must be able to see not just how consumers are shopping with them but how consumers shop in general, and this need pushes merchants to experiment with a variety of new tools in-store

and online, including VR and artificial intelligence (AI). A growing number of retailers are also [using](#) technologies like visual search to weave brick-and-mortar shopping aspects into online platforms, while others are utilizing machine learning (ML) and robotics to improve fulfillment centers' speed and efficiency.

Getting those combinations of products, prices, technologies and tools just right is more

challenging than it seems, especially as consumers' payment and shopping behaviors evolve. The 2019 holiday season provided a glimpse into current consumer buying habits, and nearly half of the 189.6 million U.S. consumers shopping between Thanksgiving and Cyber Monday did so at physical stores, according to a recent [report](#). Fiserv data found that eCommerce revenue growth outpaced that of brick-and-mortar stores by 5 percent

Checklist

Some of the key trends retailers must consider to remain competitive in today's shifting retail environment include:

TRANSFORMATION READINESS

Retailers must be prepared for technological, payments and shopping channel transformations

OMNICHANNEL EXPERIENCES

Retailers must prepare customer engagement strategies for all three major shopping channels

MOBILE WALLETS

Mobile wallets' momentum and use is increasing

VARIETY OF CHOICE

Consumers appreciate choices in products, payments and shopping channels

**eCommerce
revenue growth**
*outpaced that of
brick-and-mortar stores
by 5 percent during this period.*



during this period, however — a testament to online and mobile channels' popularity. Consumers' justifications for turning to in-store and online shopping are changing, and retailers are adapting their brick-and-mortar store experiences to be more enticing for customers. Shoppers are also using alternative payment methods more often and in new combinations, and mobile wallet and buy now, pay later (BNPL) solutions are cropping up at more retailers.

Thriving in this complex space requires crafted omnichannel experiences that provide expected levels of service, regardless of consumers' selected payment methods or browsing whims. Some of the largest names in retail have already moved in this direction, with Amazon establishing a physical presence through its acquisition of Whole Foods and its recent [partnership](#) with clothing and household store Kohl's for returns. Major retailer Walmart's eCommerce moves have also been well-documented as the grocer attempts to [challenge](#) Amazon's lead in online grocery and retail deliveries.



Other retailers are following their lead, looking to create appealing hybrid models. Successful retailers are hunting for the deeper insights they need to craft such models, investigating why shoppers turn to online platforms for certain purchases and what constitutes a satisfactory brick-and-mortar experience in a time of instant delivery and mobile payments. Consumers are still prioritizing convenience and affordability in every channel, with 56.6 percent [stating](#) they would shop more at brick-and-mortar stores if exclusive discounts were available, for example. Providing these features in one channel is easy enough, but making them standard for every transaction is more challenging.

The Retail Innovation Commerce Connected Playbook, a PYMNTS and Fiserv collaboration, analyzes how the retail world is changing and the place both brick-and-mortar and online stores have in retail's future. The Playbook will take a deep look at how emerging digital technologies such as AI, mobile payments and visual search tools, will craft retail's next stage.

Executive Insight

What are the challenges that brick-and-mortar retailers face when offering more unified online and in-store shopping experiences? What kinds of tools and technologies help?

"Millennial and Gen Z consumers are generally more credit-adverse compared to prior generations. They also make buying decisions based on the cash flow they have today, versus leveraging credit to access cash flow in the future. Debit, [point-of-sale] installment payments and other alternative methods of payment — like ACH — are used more frequently as a result. These payment preferences force today's retailers to offer more payment options to consumers than ever before.

The greatest challenge that brick-and-mortar retailers face [to appeal to these generations] is seamlessly integrating their online and mobile technologies with their in-store point-of-sale systems. Those technologies are in completely different silos within their organizations in most cases, and the systems are not compatible with each to allow consumers to start transactions digitally and complete them within a physical store environment. A ubiquitous orchestration layer can help them create that true omnichannel experience for their customers."

JOHN NICOLA
senior vice president of retail solutions at **fiserv.**

By the Numbers

Click the  icon to read more.

Commerce Connected



39%

Portion of consumers citing customer experience as one of their **top three retail priorities**



72%

Portion of **millennial and Gen Z consumers** likely to try visual search options



\$1.8B

Amount **virtual reality technologies** will generate in 2022 through retail and marketing



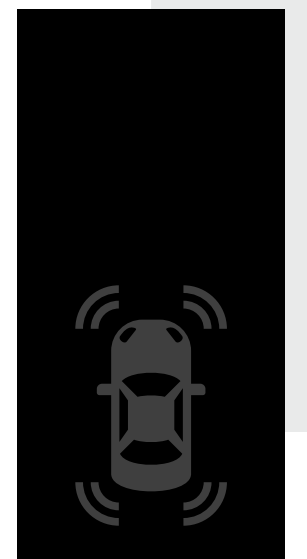
14%

Share of retailers identifying as **mobile-first organizations** in 2020



68%

Segment of retailers **investing in experiential retail** for 2020





Feature Story

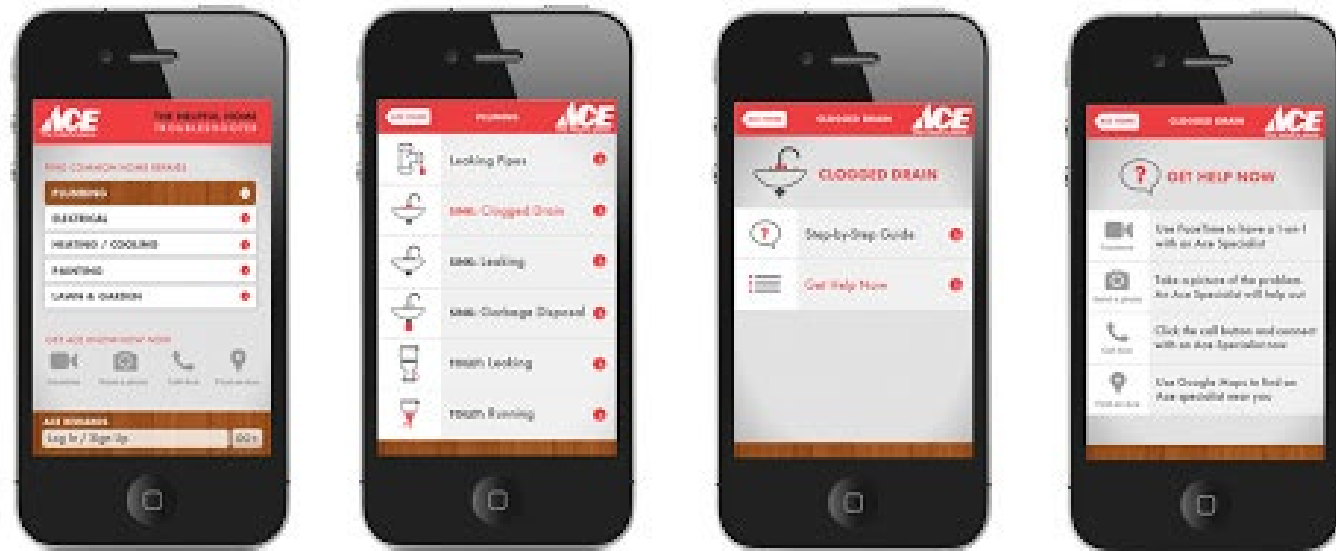
ACE
Hardware

On The Importance Of
Seamless Omnichannel



Today's retailers collect more data than ever before, helping them engage consumers who can access seemingly endless brands, shopping channels and payment methods. These ample options can make managing customer conversion or retention strategies unwieldy, especially because consumers frequently change their minds about where and how they shop.

One [survey](#) defines 85.9 percent of millennials as digital buyers. Another [report](#) found that younger generations are also far more likely than older shoppers to buy items in stores: Only 13 percent of baby boomers planned to do more in-store shopping in 2019 than in previous years, compared to a combined 43 percent of millennial and Gen Z consumers that made such plans.



This data suggests that retailers that focus on innovating only one sales channel will likely squander opportunities and have difficulties generating consumer loyalty. Brands should instead take hybrid approaches to customer relationships, maintaining both the speed expected from online and mobile platforms as well as in-store shopping's convenience and tactile advantages, according to Deanna Moreno Hernandez, mobile marketing senior manager at hardware retailer [Ace Hardware](#).

"We are in the process of enhancing our data capabilities to see a more holistic view of our

consumers and their shopping journeys to better serve their needs [on] whichever channels they prefer to [use]," Hernandez said. "We lean on our IT team to help develop in-house technologies to serve our retailers so they can provide memorable experiences in-store."

Ace is revamping its rewards system and mobile channel to that end, Hernandez continued, but the company is also making sure its new experiences work with its existing physical locations and consumer shopping patterns. Consistently seamless experiences are key to retaining customers regardless of where they shop.

The importance of omnichannel ease of use

Retailers desiring smooth omnichannel experiences must harmoniously maintain three distinct shopping channels that serve shifting payment and customer needs, all without distracting consumers. Shoppers are expecting increased personalization as well, meaning retailers must carefully consider how to foster customer trust and satisfaction.

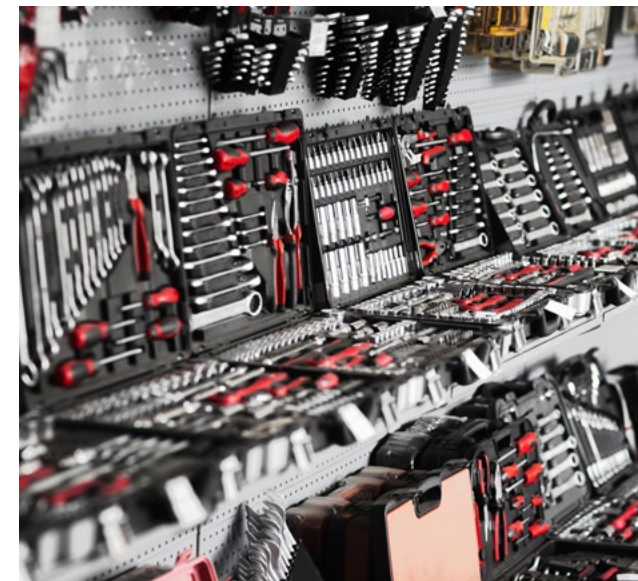
Mobile is thus emerging as a top channel for today's retailers — and not just because of its ease of use and popularity among younger consumers. This channel can also bridge in-store and online experiences, improving personalization at brick-and-mortar stores and allowing shoppers to track purchases and loyalty points on the go.

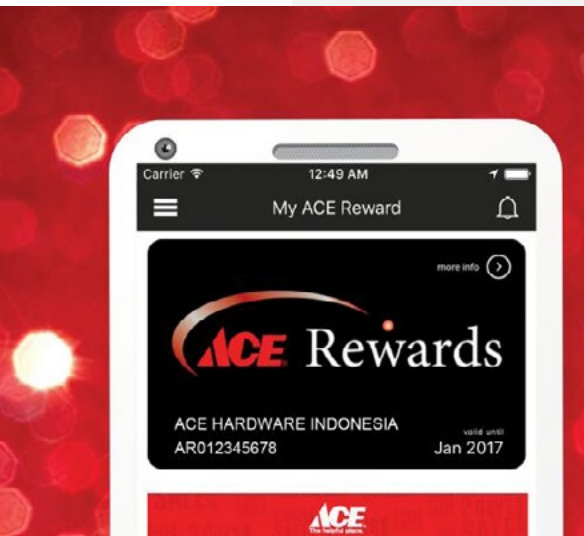
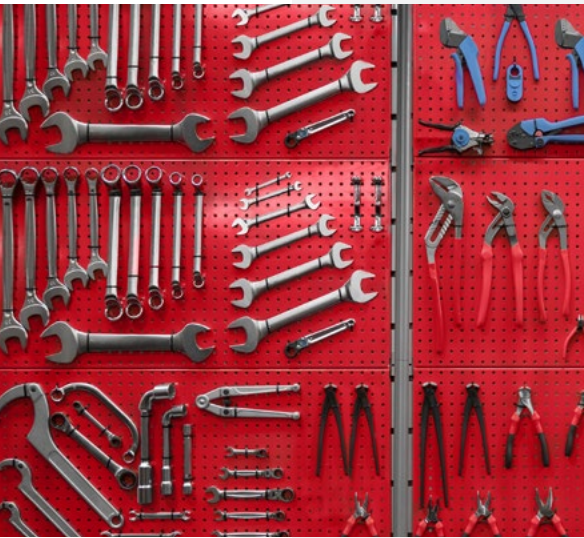


"The [new Ace] mobile app is enabling this [convenience] by offering personalized experiences," Hernandez said. "The questions that a store owner would ask to get to know customers better are replicated in the mobile app."

Ace has also grafted this mobile experience into its delivery options, allowing customers to mix and match where they make purchases, she added. App users can shop products and schedule pickups at particular locations or search for the nearest stores, and all can offer promotions directly within the app.

"Your purchases, whether in-store or online, are reflected on [acehardware.com](#) and in the app and can easily be repurchased," she said.





“The fulfillment options of buying online and picking up in-store, assembly and delivery from your local store leverages our retail footprint of more than 4,500 stores to ensure the customer has a positive experience shopping in-store or digitally, in our new app or [on] acehardware.com.”

Using mobile to connect online and brick-and-mortar sales can also help retailers maintain consumers’ trust. All purchases are categorized and maintained on devices that typically never leave shoppers’ hands, encouraging them to head back to familiar brands.

Loyalty in the new age of retail

Ace is relying more on mobile as an integral part of its loyalty strategy, Hernandez noted, adding that the retailer is implementing app features to simplify the purchasing process.

“The integration of our loyalty program, Ace Rewards, will allow members to easily access their membership cards, coupons, rewards and birthday offers all in one place,” Hernandez said. “Long gone are the days where customers will need to carry the coupon around to ensure they use it.”

Developing this mobile loyalty has its own obstacles, though. Smartphone real estate is finite, and brands stake their claim by creating easily navigable and convenient mobile apps. Ace is

hoping its offerings will entice consumers and boost customer conversion, as such offerings — especially those tailored to mobile — may enable retailers to build trust with brand-agnostic consumers.

Merchants will have to continually update their strategies, however, if they want to maintain customer relationships and satisfy new generations. Brick-and-mortar, mobile and online channels will likely experience major shifts in consumer behaviors over the next few years, and successful retailers will be the ones that engage consumers and anticipate what they want.



Key takeaways

Critical consumer preference shifts affecting the future of retail:

ENGAGEMENT

Retailers need to engage customers in the moment and in the channels they prefer

BRICK-AND-MORTAR STORES

Brick-and-mortar stores are not dying and are instead an evolving retail channel

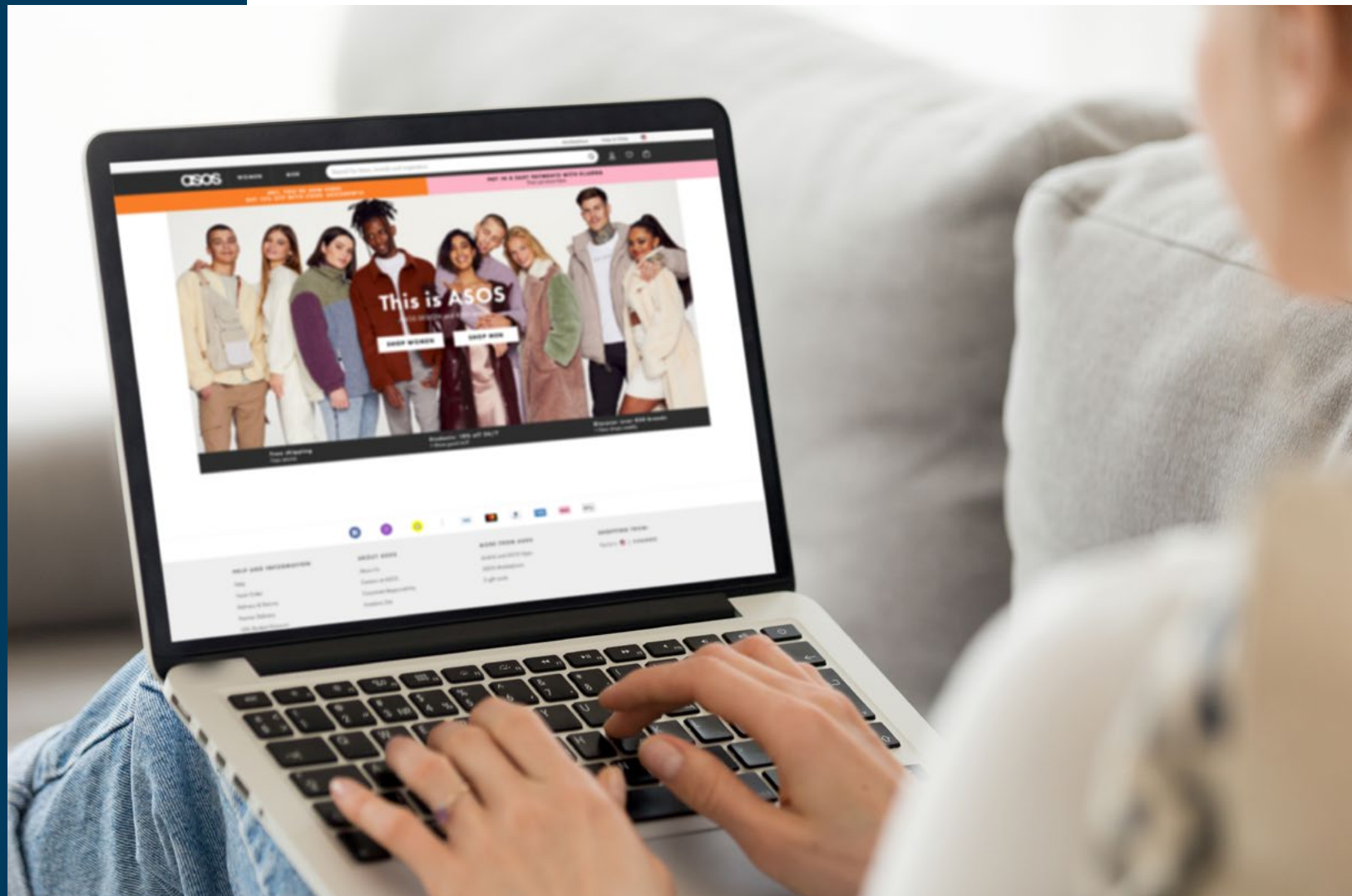
EXPERIENCE

Customers believe in-store, mobile and online shopping experiences must be individualized

DATA IMPORTANCE

Consumers’ past buying habits are critical to determining future buying trends

Engagement & Retention



ASOS unveils AR shopping tool

Customers find certain aspects of brick-and-mortar shopping more convenient than online features, prompting eCommerce retailers to replicate the in-store experiences. Online retailer ASOS thus recently began [offering](#) See My Fit, a feature that uses augmented reality (AR) to tailor clothing to specific body types. The solution mimics trying on clothes at brick-and-mortar stores and is capable of fitting approximately 800 items to 16 different body types, according to ASOS. Customers can use the product to put clothes that they are interested in purchasing on models with similar body measurements, allowing them to visualize the best possible fit.

One of the main reasons brick-and-mortar retailers have staying power is that they can tailor items to individual consumers' needs. Retail websites could develop AR features like See My Fit to replicate these experiences and close the innovation gap between physical and online stores.

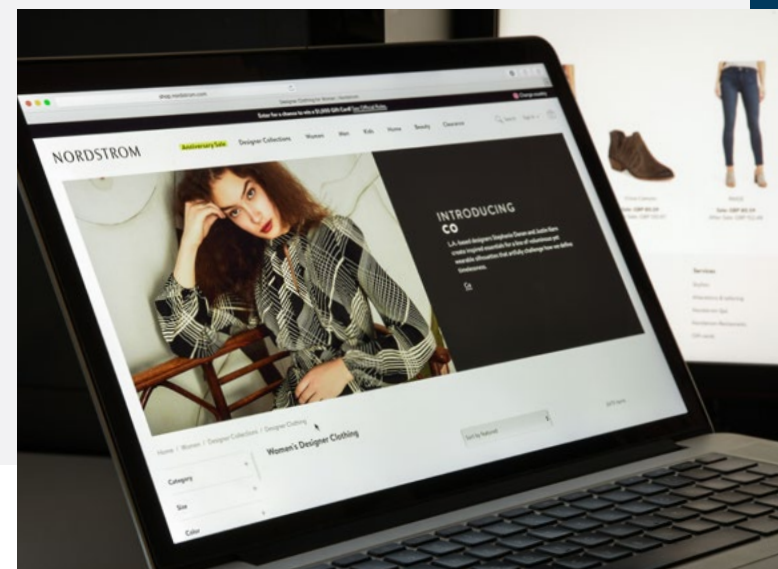
Pinterest introduces AR try-on feature for cosmetics

Pinterest is also aiming to recreate brick-and-mortar experiences via an AR cosmetics tool. The feature [allows](#) consumers to try on lipsticks from a number of brands, including Estée Lauder and Urban Decay. The smart camera in Pinterest's search tab enables the new offering, which places try-on buttons next to participating lipsticks. Users who are ready to commit can swipe upward to purchase the cosmetics.

The company says that 52 million consumers search for or otherwise engage with beauty brands on Pinterest on a monthly basis, making it a prime partner for makeup brands looking for an edge in the space. Pinterest's AR makeup experience is one of several that have launched in the past few years, following similar campaigns from brands like L'Oréal, Sephora and Ulta.

Walmart introduces robots to more store locations

Major brick-and-mortar retailer Walmart is also tapping technology to upgrade customer experiences. The company is [expanding](#) its use of artificial intelligence (AI) and robotics to 650 locations in 2020, building upon the 350 stores that already employ these technologies. Walmart's robotic fleet can fulfill simple tasks like monitoring stock on store shelves as well as helping to clean floors and unload inventory, enabling human workers to spend more time on complex tasks. Walmart does not plan to implement wholly robotic stores any time soon, however, despite its recent investments.



Nordstrom deploys robots for eCommerce order fulfillment

Robotics have their place in eCommerce as well, with luxury department store Nordstrom recently [partnering](#) with Tompkins Robotics for its t-Sort solution, which automates and categorizes products ordered online for shipments and deliveries. The system reduces the effort invested in order fulfillment, and it will only be used in Nordstrom's fulfillment centers, unlike Walmart's in-store robots. Nordstrom is currently using t-Sort to fulfill beauty product orders from customers on the west coast.

Filling online orders as quickly as possible is becoming critical to competing in the eCommerce space. Human employees are unable to keep up with order volumes at the same rate as autonomous technologies, shifting retail behind the scenes as well as overall customer experiences.

Regulation & Compliance



New York City bans cashless businesses

Retailers must support new, innovative payment types — both online and in-store — and must also bear the costs of offering more traditional methods. New York City [became](#) the latest region to ban cashless restaurants and stores, following Philadelphia, San Francisco and the state of New Jersey. The bill is set to become effective nine months from its January signing, giving cashless businesses time to reorganize and start accepting cash.

Lawmakers are aware of the rising costs and other downsides associated with accepting cash, but they believe companies that do not accept it are alienating consumers who cannot access bank accounts or other digital payment types. Approximately 6.5 percent of American households are unbanked, meaning cash is likely their only option. [Reports](#) cited by the New York City bill's sponsor estimated that 25 percent of the city's population consisted of unbanked and underbanked individuals.

PayPal completes Honey Science acquisition

Payment preferences are continuing to evolve despite cash's hold on the space, and payment services provider PayPal is hoping to please consumers and merchants with a recent acquisition. The company [finalized](#) its \$4 billion purchase of Honey Science, a Los Angeles-based technology firm that offers browser extensions and other tools to help merchants enhance online shopping experiences. Honey Science's solutions alert its approximately 17 million monthly users of price drops on long-awaited items and use financial insights to ensure they consumers receive the best possible deals. PayPal aims to use the technology in its core checkout features, according to a statement from Dan Schulman, the company's CEO and president.

Transact

Stein Mart creates buy button for BOPIS

One of the more popular ways brick-and-mortar retailers are grafting digital experiences into their physical locations is by offering customers the option to purchase items online and pick them up in-store. Retailers like Walmart and Kohl's have had such buy online, pickup in store (BOPIS) programs available for a while, but others are now following their lead. Florida-based department store Stein Mart [became](#) the latest to push this trend forward, recently developing a buy button with a twist for consumers using BOPIS options. Customers can push the smart button upon arrival to alert Stein Mart employees to their presence, allowing workers to immediately assist shoppers with the collection of their purchases.

The button eliminates many of the pickup experience frustrations both for employees and customers, preventing buyers from having to stand in long lines while waiting for employees to collect their items and bringing the convenience of online shopping into brick-and-mortar locations.

Walmart upgrades stores with advanced checkout options

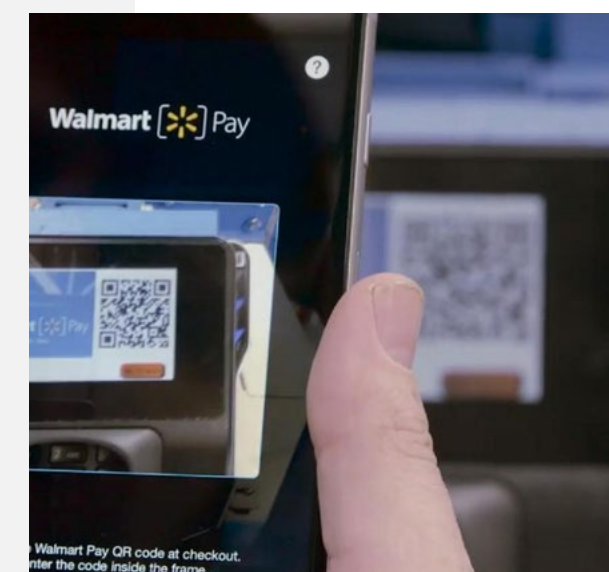
Walmart is also experimenting with new ways to enhance customers' in-store shopping experiences. The company is [testing](#) several new features at one of its concept stores in Miami, including ways to improve grocery pick-up convenience and upgrade checkout experiences for harried shoppers. The new process allows customers to check out with employees anywhere in the store, preventing them from having to wait in the long lines at self-service stations or manned registers.

Similar solutions are also cropping up at other retailers, including beauty chain Sephora. Convenient options such as these show that brands are actively seeking to eliminate brick-and-mortar shopping's traditional pain points.

UPS experiments with delivery drones

Same-day delivery was once a distinguishing characteristic for larger online retailers, but the Amazon effect has led to consumers expecting the same turnaround from every online retailer. Package delivery firm United Parcel Service (UPS) is [experimenting](#) with drones, among other technologies, to meet customers' needs and deliver packages in the shortest time possible. The drones will be part of UPS Flight Forward, which began delivering supplies to the University of California San Diego's medical school in February. The use cases for these drones will eventually expand into retail package deliveries.

UPS has made other changes to keep up with the increasing flood of same-day deliveries. It has begun testing autonomous vehicles for speedier ground delivery, for example, and has extended its operating hours.



Protect



Retailers experiment with AI for discounts, promotions

Retail uses of AI will likely continue to expand over the coming years, but such technologies must overcome several challenges first. Many retailers are [looking](#) for ways that AI and ML could offer online shoppers more personalized discounts or promotions, for example. Such use cases require access to privileged or sensitive customer data — a crucial component for the development of AI, ML and similar technologies. Retailers and their technology partners must implement processes carefully, however, or risk customers' data being stolen.

These technologies could have multiple cost benefits for retailers if used securely and effectively. [Studies](#) show employing AI for price optimization could increase retailers' revenues by between 1 and 5 percent on average. The technology could also help maximize retailers' discounts, crafting them for greater appeal among individual customers.

Rumors of Amazon biometric pay-by-hand devices surface

Data security must also be taken seriously when applied to biometrics, which are slowly filtering into more payment and retail use cases. Amazon may be the next eCommerce player to use biometrics for payments, with reports circulating that the company will be [offering](#) third-party companies devices that enable pay-by-hand biometric transactions. The tools will allow customers to make payments by placing their palms on or waving their hands over the checkout terminals, which will link biometric data with credit or debit cards.

The devices are still in the early stages of development and are not yet available, as security concerns [persist](#). Such payment technology has yet to make it to mainstream retail in part because of potential privacy flaws, which could lead to identity theft. The issue is mainly the fact that companies will need to store these identifications on their own servers, which are often vulnerable to fraud and could lead to hacks on other sites that require biometric authentication.

Analyze

NRF 2020 shows off the rise of self-checkout kiosks

Trade shows and other retail events can give companies a sense of which technologies are on the rise, so it is notable that self-checkout kiosks and related interactive self-service technologies [dominated](#) NRF 2020. The January show was put on by the National Retail Federation (NRF) in New York City and saw multiple brands and technology providers debuting their latest prototypes and upgrades. AI, cashless payments and biometric security measures like facial or voice recognition were added to kiosks on display from companies like Advantech, Appetize and Diebold Nixdorf, which all were seeking to ease frictions in customers' checkout experiences.

Self-checkout kiosks have evolved considerably since their initial implementation into grocery stores and movie theaters. Providers will need to continue innovating as consumer trends change, however. They need to ensure their offerings are still making the brick-and-mortar experience more convenient, catering to consumers' payment and shopping needs.

Examining VR's future in retail

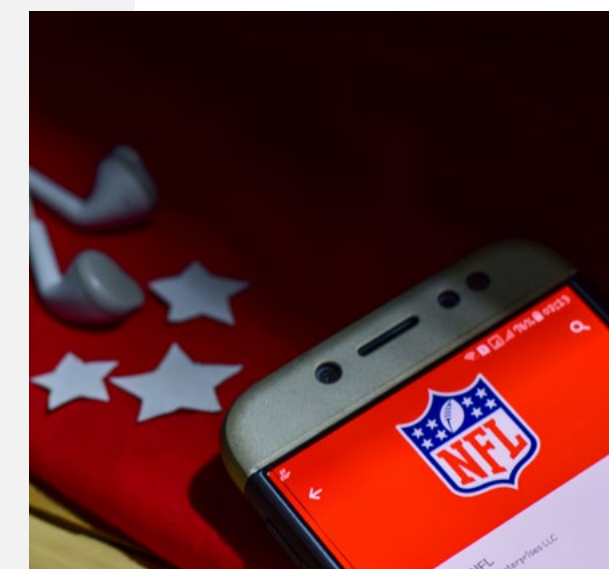
VR has captivated brands and their partners since it was first conceived, and the technology is finally catching up to long-held expectations. Both brick-and-mortar retailers and online-only companies are [experimenting](#) with VR for more personalized shopping experiences. Consumers are becoming familiar with VR headsets, and the number of global VR users increased from 85 million in 2017 to 171 million in 2018.

This rise has resulted in companies like Amazon and Chinese eCommerce giant Alibaba investing in VR technology, and clothing brand The North Face has offered virtual marketing experiences for several years. Introducing VR into eCommerce will markedly impact the future of retail, especially as consumers begin to expect higher quality, more technological ways to interact with brands.

Fanatics to operate NFL eCommerce sites

Retail is an interconnected industry where conglomerates vie for control over valuable niches, such as sports merchandise. Retail company Fanatics recently inked an omnichannel deal with several U.S. sports teams to manage and support their eCommerce stores. The firm will power the platforms for the NFL's [Indianapolis Colts](#) as well as MLB's [Miami Marlins](#). Both sites will use Fanatics' cloud commerce offering to create more vibrant and engaging product displays and smoother checkout experiences.

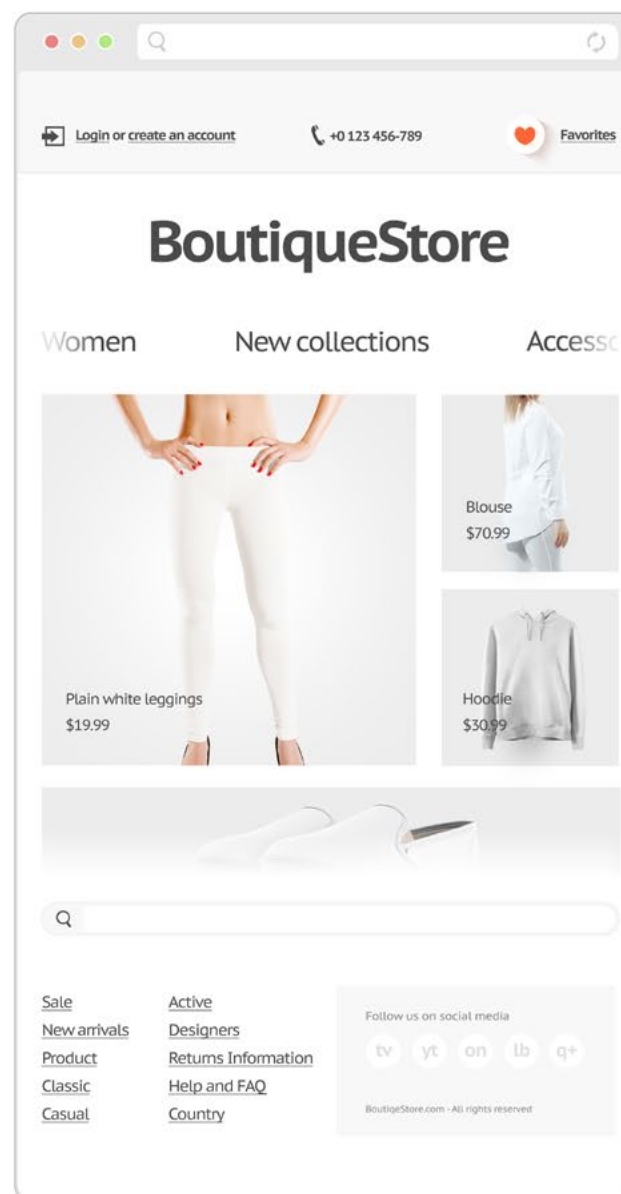
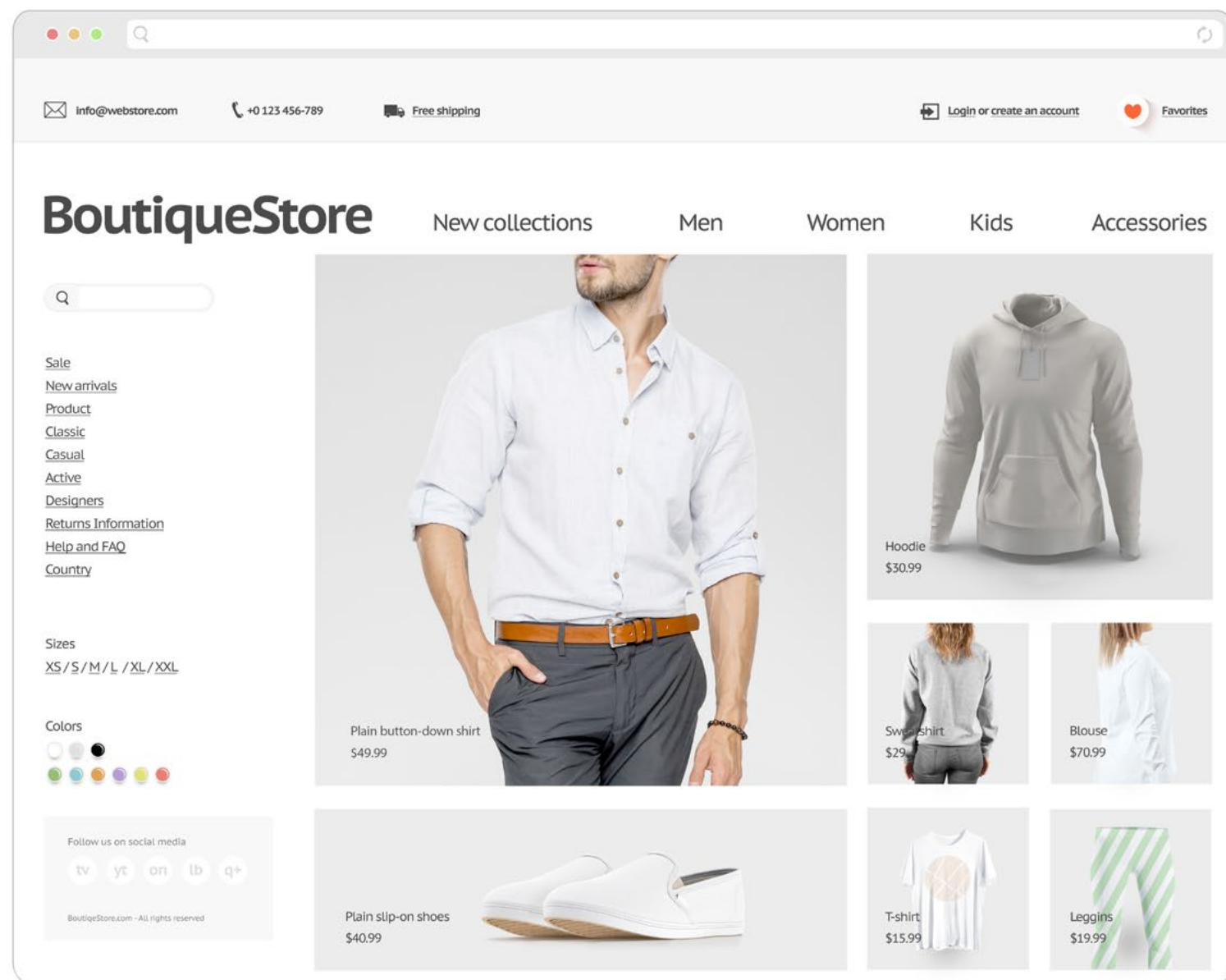
This deal gives Fanatics more of a presence in the online sports world, both in retail and entertainment. Similar moves could help sports teams boost engagement with fans, more of whom are choosing to watch games from their homes rather than at stadiums — certain teams have even [removed](#) seats from their stadiums as attendance continues to fall.





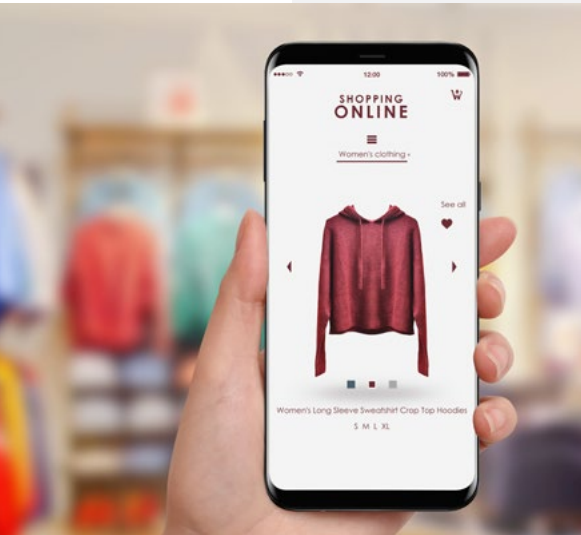
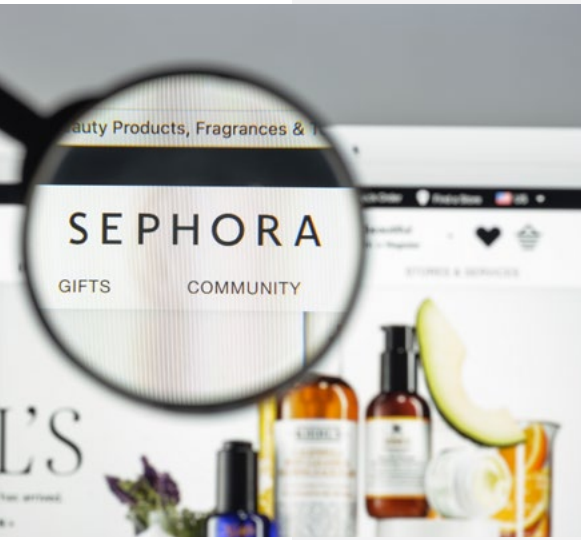
Deep Dive

Visual Search: The Next Retail Battleground



Shopping has always been highly visual, and online shopping is no different. eCommerce's rise has only made designing retail showrooms more complex, however. Digital brands lack brick-and-mortar stores' advantages — customers cannot feel fabric textures or see electronics' resolution qualities. Merchants need to bridge this gap as digital connectivity pushes the retail world's boundaries.

Companies need all the tools they can get to keep consumers engaged in the competitive retail environment. Visual search technologies could help eCommerce brands gain the edge they need to **engage** customers and — more importantly — make purchases. Such tools **allow** consumers to find items that match photos of similar products and narrow their searches based on visual characteristics. Visual search simulates browsing through racks at brick-and-mortar stores and can use one photo to help customers find the clothes and accessories that celebrities are wearing or dozens of more affordable, similar items.



Retailers of all sizes are enamored with visual search, which has already proved beneficial just a few years into the technology's greater development. Social media platform Pinterest [sees](#) approximately 600 million visual searches on its Pinterest Lens tool each month, for example, though it is [unclear](#) how many of these searches turn into purchases. [Studies](#) predict that supporting visual and voice search could boost digital commerce revenues by as much as 30 percent by 2021.

The question to examine is not if these tools should be utilized but rather which retailers will incorporate them most effectively. Integrated visual search tools must exceed competitors' if companies want to thrive in retail's next stage.

The rise of visual search

Shopping online is second nature for most consumers, especially millennials and members of Gen Z. Digital browsing cannot mirror all of physical stores' experiences, however, which is likely why one of the earliest visual search methods — virtual try-ons — [muscle](#) its way into eCommerce. Such tools allow customers see how cosmetics or clothes would look on their bodies without leaving home.

Sephora has [offered](#) virtual try-on features for years, but consumers are beginning to ask for more: A recent [study](#) found that 62 percent of Gen Z and millennial consumers want visual search technologies. Companies are taking note of this and are thus implementing related tools. Retail giant Target [integrated](#) Pinterest Lens into its mobile app, for example, and young adult clothing brand Forever 21 [combined](#) AI with visual search, allowing it to offer mobile and online shoppers more personalized results. The latter reported an increased average purchase size of 20 percent for digital customers following this implementation. Clothing brand Tommy Hilfiger updated its search features in September 2019 to [include](#) a visual commerce function for its digital shoppers.

These retailers are looking to use visual search as a foothold as the market shifts and younger generations represent more shoppers. Recent [research](#) found that 81 percent of Gen Z consumers still prefer brick-and-mortar shopping, however, making visual search tools all the more important for retailers relying on digital channels.

Data insights and personalization

Visual search can combine the best of both worlds for these consumers. The technology is becoming more affordable and customers are beginning to expect it, meaning competition between retailers will continue to increase. Merchants can distinguish themselves and their visual search tools with data that informs effectiveness and helps create personalized shopping experiences. AI and other automated technologies can [sift](#) through individuals' buying and browsing habits and tailor searches, leading to greater customer conversion rates.

Utilizing these insights requires actionable data, however, which can only be [collected](#) when customers make repeated visits to retailers' websites. Retailers must then ask themselves how their platforms can encourage first-time shoppers to complete purchases and return for more.

The merchants that will dominate retail's next era will be able to wield visual search as both a tool for customer conversion and further engagement. Doing so will take practice and finesse, and ambitious firms will have visual search's best applications on their radars.

About

Disclaimer

PYMNTS.com

[PYMNTS.com](https://pymnts.com) is where the best minds and the best content meet on the web to learn about "What's Next" in payments and commerce. Our interactive platform is reinventing the way in which companies in payments share relevant information about the initiatives that shape the future of this dynamic sector and make news. Our data and analytics team includes economists, data scientists and industry analysts who work with companies to measure and quantify the innovation that is at the cutting edge of this new world.

First Data
is now **fiserv.**

Fiserv, Inc. aspires to move money and information in a way that moves the world. As a global leader in payments and financial technology, the company helps clients achieve best-in-class results through a commitment to innovation and excellence in areas including account processing and digital banking solutions, card issuer processing and network services, payments, eCommerce, merchant acquiring and processing and the Clover™ cloud-based point-of-sale solution. Fiserv is a member of the S&P 500® Index and the FORTUNE®500, and is among FORTUNE Magazine World's Most Admired Companies®. Visit www.fiserv.com and follow on social media for more information and the latest company news.

The Commerce Connected Playbook, a First Data, now Fiserv, collaboration, may be updated periodically. While reasonable efforts are made to keep the content accurate and up-to-date, PYMNTS.COM: MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, REGARDING THE CORRECTNESS, ACCURACY, COMPLETENESS, ADEQUACY, OR RELIABILITY OF OR THE USE OF OR RESULTS THAT MAY BE GENERATED FROM THE USE OF THE INFORMATION OR THAT THE CONTENT WILL SATISFY YOUR REQUIREMENTS OR EXPECTATIONS. THE CONTENT IS PROVIDED "AS IS" AND ON AN "AS AVAILABLE" BASIS. YOU EXPRESSLY AGREE THAT YOUR USE OF THE CONTENT IS AT YOUR SOLE RISK. PYMNTS.COM SHALL HAVE NO LIABILITY FOR ANY INTERRUPTIONS IN THE CONTENT THAT IS PROVIDED AND DISCLAIMS ALL WARRANTIES WITH REGARD TO THE CONTENT, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT AND TITLE. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF CERTAIN WARRANTIES, AND, IN SUCH CASES, THE STATED EXCLUSIONS DO NOT APPLY. PYMNTS.COM RESERVES THE RIGHT AND SHOULD NOT BE LIABLE SHOULD IT EXERCISE ITS RIGHT TO MODIFY, INTERRUPT, OR DISCONTINUE THE AVAILABILITY OF THE CONTENT OR ANY COMPONENT OF IT WITH OR WITHOUT NOTICE.

PYMNTS.COM SHALL NOT BE LIABLE FOR ANY DAMAGES WHATSOEVER, AND, IN PARTICULAR, SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, OR DAMAGES FOR LOST PROFITS, LOSS OF REVENUE, OR LOSS OF USE, ARISING OUT OF OR RELATED TO THE CONTENT, WHETHER SUCH DAMAGES ARISE IN CONTRACT, NEGLIGENCE, TORT, UNDER STATUTE, IN EQUITY, AT LAW, OR OTHERWISE, EVEN IF PYMNTS.COM HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

SOME JURISDICTIONS DO NOT ALLOW FOR THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, AND IN SUCH CASES SOME OF THE ABOVE LIMITATIONS DO NOT APPLY. THE ABOVE DISCLAIMERS AND LIMITATIONS ARE PROVIDED BY PYMNTS.COM AND ITS PARENTS, AFFILIATED AND RELATED COMPANIES, CONTRACTORS, AND SPONSORS, AND EACH OF ITS RESPECTIVE DIRECTORS, OFFICERS, MEMBERS, EMPLOYEES, AGENTS, CONTENT COMPONENT PROVIDERS, LICENSORS, AND ADVISERS.

Components of the content original to and the compilation produced by PYMNTS.COM is the property of PYMNTS.COM and cannot be reproduced without its prior written permission.