

The Top Retail Technology Investments In 2019

Retailers Must Distinguish Hot From Hype In Tech Investments

by Brendan Witcher

July 9, 2019

Why Read This Report

We interviewed more than 40 industry professionals to understand the areas of retail initiatives they are investing in this year. This report gives digital business professionals insights into which technologies retailers are investing in and to what extent.

Key Takeaways

Retailers Innovate With Initiatives That Have Proven Customer Value

Omnichannel commerce leads the way in this year's retail tech investments. It's often part of other top priorities, including advanced data and analytics, personalization, and digital store tech. Artificial intelligence and progressive web apps also moved up into this year's top priority list.

Some Newer Technologies Are On Hold Until Business Cases Are Better Understood

Technologies such as automated checkout, augmented and virtual reality, smart speaker apps, internet of things, robotics, and blockchain still need to mature and prove their value before retailers apply them to customer-facing scenarios.

Niche Use Cases Make For Niche Adoption Of Technologies Still Stuck In Pilot Mode

Technologies that improve a retailer's or brand's specific customer need — such as same-day delivery, social commerce, experience centers, chatbots, subscription services, and new marketplaces — seem destined to address special situations rather than find broad market adoption in the coming year.

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The Top 2019 Retail Tech Trends

We interviewed more than 40 industry professionals to understand what areas of retail initiatives they are investing in this year. We examined 18 different technologies, and after our interviews we segmented them into three categories based on the responses we received (see Figure 1). “Hot” technologies are the key focus of retailers we spoke with, and they are likely to see serious investment this year. Retail technologies that have buzz but lack real interest fall into the “hype” category, and those that retailers indicate legitimate near-term interest in are “on the radar.”

FIGURE 1 Retail Technology Overview

Hot	Hype	On the radar
<ul style="list-style-type: none"> • Omnichannel capabilities • Advanced analytics/data analysis tools • Digital store tech • Personalization technologies • AI/machine learning solutions • Progressive web apps 	<ul style="list-style-type: none"> • Automated checkout tech • Virtual/augmented reality • Smart speaker apps • IoT solutions • Robotics • Blockchain 	<ul style="list-style-type: none"> • Same-day delivery • Social commerce • Experience centers • Chatbots • Subscription services • Marketplaces

Hot: Retailers Double Down On Core Tech And AI

Only 30% of the retail leaders we interviewed feel that their company has a holistic digital strategy. Part of the reason is that retailers and brands still feel they need to prioritize foundational investments in the core competencies of gathering and understanding customer data and delivering great experiences across touchpoints. Retailers we spoke with for this report shared that their top tech investments largely fall into “core commerce tech” categories and quickly evolving AI (see Figure 2).

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FIGURE 2 Hot Retail Technology

Initiative	Why it's hot	What we heard
Omnichannel	<ul style="list-style-type: none"> Poor in-store pickup experiences and other issues leave room for improvement. Fulfilment and marketing are key investment areas. Winners leverage store experience, inventory, and endless aisle. 	<ul style="list-style-type: none"> "We have seen seven straight quarters of growth for in-store pickup as a percentage of online sales, and more than 40% of our online revenue is now picked up in our stores." (Hubert Joly, Best Buy chairman and CEO)¹
Advanced data analytics	<ul style="list-style-type: none"> Nearly 80% of retail leaders we interviewed feel that their companies are not data led.² Many technology investments, such as personalization, depend on advanced analytics. 	<ul style="list-style-type: none"> "Data is the new sexy. Everyone realizes that they have been collecting data for years, and when you look across the data portfolio, you realize you have all this power and you aren't harnessing it." (eCommerce director, apparel brand)
Personalization	<ul style="list-style-type: none"> Twenty-two percent of US online adults would prefer that retailers use their information to personalize shopping experiences.³ Retailers struggle with the basics: 55% of US online adults say that most email ads they receive don't interest them.⁴ 	<ul style="list-style-type: none"> "Our vision is to make every guest touchpoint personalized and relevant, building tools and capabilities to develop a closer connection to our guests so they feel even deeper loyalty." (Mary Dillon, Ulta CEO)⁵
Artificial intelligence (AI) and machine learning (ML) in the retail tech stack	<ul style="list-style-type: none"> Retailers are infusing AI and ML into business analytics, merchandising and inventory, marketing technology, customer engagement, and operations.⁶ Perceptions of AI's potential have expanded beyond retail operations to include some customer-facing applications. Twenty-four percent of retail and wholesale data and analytics decision makers whose firms are interested in or using AI technologies report that improving customer experience is a benefit of using AI.⁷ 	<ul style="list-style-type: none"> "Our challenge is where to use AI so that it has near-term incremental impact on our business today and doesn't just create new work." (eCommerce vice president, apparel brand) "A lot of the value that we're getting from machine learning is actually happening beneath the surface. It is things like improved search results. Improved product recommendations for customers. Improved forecasting for inventory management." (Jeff Bezos, Amazon CEO)⁸

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FIGURE 2 Hot Retail Technology (Cont.)

Initiative	Why it's hot	What we heard
Digital store technology	<ul style="list-style-type: none"> Seventy percent of global retail purchase influencers report that they plan to invest in digital store operations technologies in 2019.⁹ Retailers are investing in mobile point of sale (mPOS), point of sale (POS), in-store analytics, digital signage, associate enablement, and RFID.¹⁰ 	<ul style="list-style-type: none"> "Finding a better way to serve your customer with technology depends on what type of retailer you are. For a big box retailer, your customer may want to pull up ratings and reviews. In small service location, your technology might be more focused on analytics of the transactional flow." (Chief information officer, apparel brand)
Progressive web apps (PWAs)	<ul style="list-style-type: none"> Last year, many retailers we interviewed did not even know what a PWA was. This year, PWAs are a must-have because they blend the best of the native and web worlds: great app-like experience built efficiently within web.¹¹ Pinterest's PWA shrank the time to first interaction from 23 seconds to 5.6 seconds. The payoff was a 60% lift in engagement.¹² 	<ul style="list-style-type: none"> "If you don't have a PWA [now], you will [soon]. They go hand in hand with omnichannel initiatives. PWAs are super relevant, and retailers are already pretty far along with them." (Chief information officer, apparel brand)

¹Source: "Best Buy Co. (BBY) CEO Hubert Joly on Q3 2019 Results - Earnings Call Transcript," Seeking Alpha, November 20, 2018

²Source: Forrester's Q1 2019 Global Top Retail Tech Survey

³Source: Forrester Analytics Consumer Technographics® North American Retail And Travel Benchmark Recontact 1 Survey, 2018 (US)

⁴Source: Forrester Analytics Consumer Technographics North American Online Benchmark Survey (Part 2), 2019

⁵Source: "Ulta Beauty, Inc. (ULTA) CEO Mary Dillon on Q3 2018 Results - Earnings Call Transcript," Seeking Alpha, December 7, 2018

⁶Source: Forrester's Q1 2019 Global Top Retail Tech Survey

⁷Source: Forrester Analytics Global Business Technographics Data And Analytics Survey, 2019

⁸Source: Todd Bishop, "Jeff Bezos explains Amazon's artificial intelligence and machine learning strategy," GeekWire, May 6, 2017

⁹Source: Forrester Analytics Global Business Technographics Priorities And Journey Survey, 2019

¹⁰Source: Forrester's Q1 2019 Global Top Retail Tech Survey

¹¹Source: "It's Time To Make Every Web Application A Progressive Web App" Forrester report

¹²Source: "Join The Progressive Web App Movement" Forrester report

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Hype: Many New Tech Opportunities Still Need Time To Mature And Prove Their Value

eCommerce professionals generally described the tech investment categories that they are not prioritizing in 2019 as too far ahead of either customers or the market. They said they would not likely make significant investments in many of the newer areas of tech (see Figure 3).

FIGURE 3 Hype Retail Technology

Initiative	Why it's hype	What we heard
Automated checkout	<ul style="list-style-type: none"> • Eleven Amazon Go stores located in four cities aren't yet shifting consumers' expectations. • Automated checkout technology takes years to test and ultimately implement correctly. 	<ul style="list-style-type: none"> • "While it's not the same as Amazon's technology, retailers are investing in trying to remove friction from checkout. However, automated checkout is not the top of list and is not for every retailer." (Marketing assistant vice president, cosmetics brand) • "If you want to change customer behavior, you have to replace a pain point with something significantly better." (Digital senior vice president, women's apparel brand discussing the Amazon Go experience)
Virtual reality/augmented reality (VR/AR)	<ul style="list-style-type: none"> • Retailers tell us that VR and AR are not seen as practical investments outside of a few specialized areas such as fashion, beauty, and furniture. • Most retail use cases can't pass the litmus tests for AR (Does the customer get value from the ability to put something somewhere?) or VR (Does it make it more convenient for the customer to shop?). 	<ul style="list-style-type: none"> • "No, this is not a top investment. I'm over VR/AR." (Marketing assistant vice president, cosmetics brand) • "Some of the furniture retailers are doing interesting things with VR/AR, but for many retailers there isn't a business case yet and there won't be." (Executive board member, advisory firm)
Smart speaker apps	<ul style="list-style-type: none"> • Although we forecast the smart speaker market to have a CAGR of 19% from 2018 to 2023, very few retailers or brands we spoke with have begun developing a strategy for this new commerce channel.¹ • Some retailers expressed hesitation about selling on these devices, saying they were uncomfortable sharing customer data with Amazon and Google. 	<ul style="list-style-type: none"> • "Smart speakers are a really awesome area and opportunity, but retailers are still figuring out their play there." (Customer engagement director, apparel brand) • "For luxury shoes, smart speaker apps are not a good fit. For products that are not commoditized and don't want to be commoditized, this does not make sense." (Chief marketing officer, luxury shoe brand)

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FIGURE 3 Hype Retail Technology (Cont.)

Initiative	Why it's hype	What we heard
Retail IoT solutions	<ul style="list-style-type: none"> • Consumers aren't connected to IoT aside from their phone or smart speakers, and few retailers have "connected store" concepts. • Most brands control IoT-connected products and extracted data, leaving most retailers without a strong business case. • Only about one-third of services decision makers said their firm invested in connecting physical operations and digital software processes as part of their most recent digital transformation.² 	<ul style="list-style-type: none"> • "Every year when we look at the full investment portfolio, we put IoT to the side. We must prioritize other projects that have proven adoption." (eCommerce director, apparel brand) • "The most obvious IoT use case is the smart home, and unless you are in the Amazon ecosystem, there is no need to tie to other solutions at this time. Additional IoT use cases depend on if you are using RFID in-store or smart mirrors — in that case you may have a real use case outside of the home." (Digital senior vice president, women's apparel brand)
Robotics for customer engagement	<ul style="list-style-type: none"> • Most retailers we spoke with say that there isn't a practical application of robotics for customer engagement yet. Robotics in supply chain and manufacturing is more of a priority. • For operational use in the store, robotics will make sense when time in labor and accuracy costs are covered. 	<ul style="list-style-type: none"> • "Putting robotics into all our stores would be expensive. Delivery would also be difficult with our heavy items." (Enterprise architecture vice president, retail chain) • "There is a last mile issue with delivery bots. What if one can come out to receive the package? A robot working in store aisles with an RFID sweeper does not make sense financially. Humans should do those functions because the CapEx is 0." (Executive board member, advisory firm)
Blockchain	<ul style="list-style-type: none"> • Most retailers don't understand blockchain or its applications outside of QA for product procurement. • Some retailers feel they can use blockchain for payments, but that's not currently an area of focus. 	<ul style="list-style-type: none"> • "Blockchain is the biggest talk without reality." (Chief information officer, apparel brand) • "If you sell food, customers want to know the sources of food, so blockchain might have a play. When your brand proposition is fashion, there is less concern from customers." (Digital transformation practice leader, information services firm)

¹Source: Forrester Analytics: Smart Home Devices Forecast, 2018 To 2023 (US)

²Source: Forrester Analytics Global Business Technographics® Business And Technology Services Survey, 2017

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On The Radar: Tech That Serves Up Speed And Convenience Is On The Rise

The tech investment categories that digital business professionals will spend less on this year have the potential to become significant in the future, but they are still proving themselves for customer engagement. This year, retailers noted:

- › **Same-day delivery is a big retail play, but customers don't require it . . . yet.** As one retail executive explained, Amazon, DoorDash, and Target are pushing the envelope with same-day delivery, and he felt that “eventually, people will get addicted to it.” However, others were less bullish: One retailer we spoke with stated that improved delivery options are a natural part of omnichannel, but “same day is not a customer requirement” and “may not be feasible from a business perspective.” Along those lines, according to Forrester data, US online adults do not expect same-day delivery and prefer free shipping over fast shipping.¹
- › **Social commerce is still a minor channel.** Fifty-five percent of retailers plan to invest more in social marketing in 2019 than they did in 2018, but 33% said they plan to invest less.² Retailers told us that social conversion is generally unimpressive, but it is still an attractive channel because of low investment requirements. However, one champion for social commerce, a brand marketer, stated: “Instagram is the first social channel where I've seen social commerce be successful. For brands with great imagery that can inspire consumers, Instagram is a good channel.”
- › **The profitability of experience centers remains questionable.** “Experience centers will get you a lot of headlines but not a lot of margin.” said one retailer. Measuring the ROI is a challenge. However, of the retailers we spoke with that said they are investing in experience centers, 70% said they were investing in lower-cost pop-ups. One retail leader explained: “Pop-ups are a gateway to permanent experience centers. For digitally native brands, it is nice to have a pop-up to test and learn and not have to pay for a lease at first.”
- › **Chatbots are still mostly for service, but some selling pilots are kicking off.** Only about half of the retailers we interviewed are investing in chatbots. Of those, 93% reported investing in chatbots for service and 40% reported sales. Of those 40%, none would commit to chatbots being the primary selling tool. The systematic, rule-driven approach to service has made chatbots attractive, One retailer explained: “If a customer wants to return an item, today they need to call us. Chatbots are a good option to automate this process.”
- › **Subscription services build sticky customer relationships but are difficult to execute.** One retailer told us: “Many retailers have thought about investing in subscription services; however, traditional retailers usually cannot pull it off. Subscriptions cannot be used to get rid of excess inventory. Running subscription services is more complex than most retailers think, and they often abandon their programs after starting.”
- › **Marketplaces are a ripe opportunity, but risk-averse retailers are hesitant.** We forecasted that 59% of global B2C eCommerce would come from marketplaces in 2018, but many retailers seek evidence of ROI and scalability.³ As one retailer we interviewed said, “Customers already

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know to go to Alibaba and Amazon. Why would retailers endure the marketing expense to create their own marketplace?” Another interviewee explained, “Marketplaces are not going to be a huge percentages of sales, but they are a way of extending the brand, driving traffic, and increasing basket size.”

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Endnotes

¹ Two-thirds of US online adults agreed that they would be willing to wait longer to receive their purchase in exchange for free shipping, while 66% agreed with the statement “I am generally satisfied with the amount of time it takes for a product I've ordered to be delivered.” Source: Forrester Analytics Consumer Technographics® North American Retail And Travel Benchmark Recontact Survey 1, Q3 2017 (US).

² See the Forrester report “[The State Of Retailing Online 2019: Omnichannel, Marketing, And Personalization.](#)”

³ See the Forrester report “[Forrester Analytics: Online Marketplaces Tracker, 2015 To 2018 \(Global\).](#)”

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