The Retail Perspective: Bridging online and in-store experiences with technology
About the study

Zebra’s 12th annual Shopper Study surveyed over 6,300 global respondents (shoppers, store associates and retail executives) to gauge the attitudes, opinions and expectations reshaping brick and mortar and online retail. The results, summarized in a two-part series, are essential reading for industry leaders seeking actionable insights to serve today’s tech-savvy shoppers.

### 1-minute view

**Shoppers**
Focuses on the contemporary shopper experience

**Retailers**
Analyzes retailers’ technology plans for solving chronic shopping issues

Retailers are ratcheting up their investments in alternative fulfillment strategies to better serve today’s ever-connected shoppers

<table>
<thead>
<tr>
<th>Fulfillment strategy</th>
<th>Currently</th>
<th>Expected in 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stores enabled to fulfill web orders</td>
<td>40%</td>
<td>90%</td>
</tr>
<tr>
<td>Stores enabled to ship to warehouses and/or direct to consumers</td>
<td>45%</td>
<td>90%</td>
</tr>
<tr>
<td>Dedicated fulfillment centers for online</td>
<td>40%</td>
<td>87%</td>
</tr>
<tr>
<td>Regional/near-shoring of fulfillment centers</td>
<td>34%</td>
<td>86%</td>
</tr>
<tr>
<td>Direct ship from manufacturer or retailer</td>
<td>40%</td>
<td>86%</td>
</tr>
<tr>
<td>Shared fulfillment centers for online and offline</td>
<td>38%</td>
<td>85%</td>
</tr>
<tr>
<td>Click and collect, drop-off, collection hubs</td>
<td>35%</td>
<td>85%</td>
</tr>
<tr>
<td>Using third-party fulfillment partners</td>
<td>36%</td>
<td>83%</td>
</tr>
<tr>
<td>Locker pickup</td>
<td>34%</td>
<td>83%</td>
</tr>
</tbody>
</table>
The new reality: Tech-powered retail

The convenience of e-commerce and ever-connected digital lifestyles has reshaped expectations, causing consumers to crave consistent brand experiences across online and in-store. To build loyalty and wallet share, retailers must deliver seamless, multichannel experiences that are memorable—and they're leveraging technologies like intelligent automation, cloud computing, mobility and more to do so.

Technology helps retailers by connecting physical and digital worlds to drive innovation, efficiencies and economic growth.

Eighty-six percent of retailers expect to increase investment in intelligent automation over the next two years.¹

Retailers are investing in the technology today’s connected consumer expects, whether shopping in store or online. Powered by technology, retailers are catering to consumer expectations to:

• Increase inventory visibility and reduce out-of-stocks
• Enhance operational efficiency to manage returns and pricing and improve fulfillment
• Drive smarter decisions to elevate the overall shopper experience

Price verses service

Forty-two percent of retail executives believe price is customers’ top priority. However, retailers can compete on more than price by adopting technology to up their service game and provide a meaningful competitive differentiator.

Retailers’ outlook on revenue fuels investments in technology

Despite reports of a retail apocalypse, retailers expect revenue to grow and are increasing IT and staffing investments as a result.

Percent of retailers who expect an increase of 6%-10% through 2020

36% increase in sales performance
28% increase in IT spending
31% increase in IT staffing

¹ Zebra Technologies, The Intelligent Enterprise Index, October 2019
Retailer viewpoint

New technology builds retailer confidence

Digital transformation has been bumpy for many brick-and-mortar-only retailers, who have been preoccupied trying to compete against pure e-commerce operations. To compete, merchants are embracing technology, applications and devices that help connect physical retail with e-commerce. Just like online, the store is becoming a digital, data-empowered environment.

Key technology investments revolve around workforce management and self-service, or mobile customer tools for checkout and payment. As we enter a new decade in 2020, retailers will advance into an era of intelligent automation, where everything from inventory, pricing, analytics and robots will help streamline retail operations in real time.

Watch the video to learn more about how a connected retail ecosystem can deliver a better experience.

Retailers rate importance of technologies in building smarter retail operations

<table>
<thead>
<tr>
<th>Technology</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workforce analytics</td>
<td>86%</td>
</tr>
<tr>
<td>Smart check-out</td>
<td>83%</td>
</tr>
<tr>
<td>Visual search</td>
<td>80%</td>
</tr>
<tr>
<td>Contextualized real-time pricing</td>
<td>79%</td>
</tr>
<tr>
<td>Robot Assistance</td>
<td>69%</td>
</tr>
</tbody>
</table>

Real-time data sources include: traffic counters, cameras, queue management sensors, smart shelves, in-store beacons, unified commerce platforms, IP video, Wi-Fi triangulation, mobile triangulation, remote sensors on in-store devices, pressure sensors, and RFID.
Empowering associates to elevate the in-store experience

The evolving, ever-important role of the store associate
Automation across store processes frees associates from many time-consuming manual tasks that add little value in the eyes of shoppers, such as checking inventory and stock levels, price lookups, and even time and attendance. Associates can now supplement technology with one-on-one customer service, differentiating the store experience from shopping online.

85% of retail executives agree shoppers have a better experience in stores where associates use the latest technology to assist them.

Equipping store associates with mobile devices enables real-time access to data, so associates can give customers highly personalized and efficient experiences.

Turning associates into tech super-users
Properly training associates is crucial to the successful rollout of new store technology. Yet an estimated 65 percent of retail associates don’t know how to fully use the technology they are given. Associates (and shoppers) expect to find in-store technology that is familiar to them. In response, retailers are moving away from dated green-screen technology to enterprise-class devices with intuitive, user-friendly interfaces with smartphone-like operating systems.

92% of retail executives like the flexibility of using mobile devices at checkout stations, as well as for other in-store functions.

<table>
<thead>
<tr>
<th>Associate Device Usage</th>
<th>Today</th>
<th>Expected by 2026</th>
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<tbody>
<tr>
<td>Handheld mobile computers w/ scanners</td>
<td>76%</td>
<td>93%</td>
</tr>
<tr>
<td>Mobile point of sale devices</td>
<td>76%</td>
<td>92%</td>
</tr>
<tr>
<td>Rugged tablets</td>
<td>66%</td>
<td>89%</td>
</tr>
<tr>
<td>Wearable computers</td>
<td>59%</td>
<td>86%</td>
</tr>
</tbody>
</table>

Taking in-store service to new levels
Helping shoppers help themselves
Even in stores, customers expect to find a high-tech, optimized experience—and retailers feel the pressure to satisfy expectations formed online.

Self-service options for digital natives
Consumer preferences around interaction with store associates vary by generation. Growing up with technology and automation, digital shoppers rely on their smartphones to do just about everything.

Self-checkout is just one of the technologies retailers are using to reshape the front-of-store experience. They are also adopting self and mobile checkout in more significant numbers:

- 87% agree self-checkout improves the shopping experience
- 81% report they already see a return on their investment in self-checkout technology

Fulfillment options, such as click and collect or buy online, pick up in store (BOPIS), and mobile ordering help to keep shoppers within the retailer’s ecosystem. In addition:

- 81% of retailers provide/plan to provide mobile ordering by 2021
- 54% of shoppers say more retailers need to offer mobile ordering

Leveraging trust to drive downloads
Opt-in smartphone apps rely on shoppers’ willingness to install a new program on their personal devices. Although retailers rank at the bottom of being trusted to protect consumer data, 80 percent of shoppers who used a grocery app reported trusting the app to protect their financial and location data.

DIY customer service
Fifty-seven percent of shoppers say they can find information faster on their smartphones than by asking a store associate for help, but there’s a clear generational divide:

<table>
<thead>
<tr>
<th>Device/Service</th>
<th>Millennials</th>
<th>Gen X</th>
<th>Boomers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store-provided device</td>
<td>72%</td>
<td>54%</td>
<td>27%</td>
</tr>
<tr>
<td>Mobile concierge</td>
<td>66%</td>
<td></td>
<td></td>
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<tr>
<td>Social shopping</td>
<td>61%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crowd sensors</td>
<td>65%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shopping maps</td>
<td>59%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Elevating the experience with store devices and apps

- **66%** Store-provided device to shop: Scan and bag; experience instant checkout
- **61%** Mobile concierge: Greets and guides shoppers; provides information and offers
- **65%** Social shopping: Integrates social media; connections share shopping feedback
- **59%** Crowd sensors: Shows crowds, identifying optimal time to shop
- **65%** Shopping maps: Guide shoppers with most efficient shopping route
Retail takes on inventory challenges

Turning a customer pain point into an opportunity for retailers

Slaying out of stocks

Out-of-stocks are the number one reason shoppers leave a store. Retailers who recognize this are rapidly turning to technology to increase visibility and ensure products are on-hand and easy to locate.

Seventy-six percent of retailers agree maintaining real-time inventory visibility is a significant challenge, and 82% say their company needs better inventory management tools to ensure accuracy.

Retailers know their stock needs to be accurate and in to stand apart from other retailers and online stores.

Automated inventory verification

Inventory information must be transparent and visible to customers across online and in-store channels. If a shopper is looking for a specific item that is listed in-stock online, they expect not just to find it at the physical store, but to easily locate it as well.

Wrestling with returns

Returns, another frustration for shoppers, create a significant challenge for retailers as well. More seamless returns can be a differentiator for retailers, blending their brick and mortar and digital operations.

Forty-six percent of retail executives report they have started or are planning to start upgrading their returns management technologies in the next five years.

Return Services | By 2021
---|---
Free return shipping | 75%
Buy online/mobile, return in-store | 77%
Buy online/mobile, return to dedicated fulfillment center or return center | 72%

Retailers plan to increase tech investments to advance real-time inventory visibility

Currently providing/plan to provide within year

| Percentage | Technology |
---|---|
85% | Case or pallet-level RFID |
80% | Price management lookup |
79% | Automated inventory verification |
76% | Automated alerts out-of-stocks |
75% | Product locators |
74% | Video monitoring of inventory |
68% | Item-level RFID |
57% | Endless aisles |
Driving intelligent decisions
Business intelligence, analytics and intelligent automation inform a better store experience.

Retail gets smarter
Companies are becoming smarter, by beginning to leverage data to drive intelligent decisions around stocking, merchandising and marketing in the future. Fifty-eight percent of retailers have an IoT vision and are executing on the plan, while 40% have a plan in development as found in Zebra’s Intelligent Enterprise Index.

Retailers are integrating intelligent automation into every step of the supply chain with technologies that not only improve the customer experience, but also minimize risk and maximize operational efficiency. Key technologies being implemented:

- Machine Learning
- Computer Vision
- Virtual/Augmented Reality
- Sensors
- Analytics
- Robots and co-bots

Sense, analyze, act
Analytics can be divided into two distinct categories: predictive, which uses historical data to create predictions about future events; and prescriptive, which employs algorithms and machine learning to develop specific recommendations to drive corrective actions.

Solutions that integrate cloud computing, mobility and the IoT can automatically gather and analyze information collected from enterprise assets, such as merchandise moving through the supply chain, workers in a warehouse or shoppers in a store.

Operational data from these assets, including status, location, utilization, or preferences, can be used to generate actionable insights and identify strategies for mobilizing the right person to make the right choices at the right time.

Where retailers plan to implement business intelligence or analytics in the next year

Merchants plan to use analytics within the next year

Predictive analytics
- 76% Market basket analysis
- 74% Customer segmentation
- 74% Centralized customer data and intelligence

Prescriptive analytics
- 76% Alert out-of-stocks
- 74% Alert employees on where to assist customers in store
- 73% POS lanes based on wait times
Regional findings
Perspectives across the globe reflect distinct regional nuances.

**North America**
North American retailers lag behind all other regions in their technology adoption mindset: only 48 percent report they are likely to be the first to implement new technologies.
Eighty-five percent agree that rising e-commerce is driving more interest in fulfillment and warehouse investments.
More than 70 percent of respondents rated shrinkage/theft as a significant issue with self-checkout.

“Ecommerce has made the returns challenge worse. It’s not unusual for a shopper to purchase two to three or more sizes or colors with the intent to only keep one.”

Tim Kane, Sales Development Executive, NA
Zebra Technologies

**Latin America**
Latin America leads in the adoption rate of personal shopping devices provided by retailers, with 73 percent currently offering or planning to in the next year.
More merchants in Latin America rate workforce analytics (93 percent), Augmented Reality (89 percent) and contextualized real-time pricing (87 percent) as extremely/very important.

“Implementing mobility gives shoppers what they want, a smooth on/off line experience. And implementing RFID technology to track inventories with real-time data is a trend we’re seeing in Latin America.”

Andres Avila, Retail & Hospitality Marketing Lead, LA
Zebra Technologies

**Europe and the Middle East**
Retailers in Europe and the Middle East (83 percent) agree shoppers have a better experience in stores where the sales associates use the latest technology.
Eighty-four percent also report that self-checkout helps improve experiences, with almost three in four seeing a positive ROI from their self-checkout investment.

“Online shopping has forced retailers to pick and fulfill orders, manage store costs, determine how many stores they need, what will the store of the future be, what will inventory and omnichannel management be—they’re trying to figure out ‘what is the right model’?”

Mark Thomson, Director of Retail & Hospitality, EMEA
Zebra Technologies

**Asia-Pacific**
APAC retailers lead in embracing new technology, with over 70 percent being early adopters.
Respondents also cite robot assistance (83 percent), smart check-out and real-time store IoT platforms (89 percent) as extremely/very important to their operations over the next five years.

“Stores can be used smarter—use them as fulfillment hubs and get returns right back into inventory with technology. Real estate is expensive (in Australia); retailers need to make the most of it with their tech investments, helping their business to be more profitable. Shoppers want retailers to get the basics right. Technology can help them to do that.”

George Pepes, Retail & Hospitality Marketing Lead, APAC
Zebra Technologies
Fusing in-store and digital commerce experiences

Retail is in the midst of a monumental transition. For retailers large and small, age-old practices are now being powered by technology, to connect the retail ecosystem for a better experience. Adopting these tools is giving retailers new confidence, inspiring increased investment in IT and staffing.

About Zebra

Zebra offers an ecosystem of solutions—hardware, software, supplies and services—that empowers you to elevate the customer experience, optimize inventory and build a smarter retail operation. The roots to retail success remain—technology makes it stronger.

Additional Resources

2020 Shopper Study, Volume 1
The Intelligent Enterprise Index

Learn more at zebra.com/retail

Technology powers retail success

• Automation is not a replacement for store associates; rather it empowers them with time to deliver better service.

• Self-service options not only cater to digital natives, but also free up associates to help customers, thus setting the retailer apart. Self-checkout will continue to expand to mobile devices, automated RFID scanners and even high-functioning in-store robots.

• Tech helps retailers find new-age solutions for age-old challenges, such as returns, inventory transparency, and out of stocks. Delivering on these problems helps retailers strengthen the customer experience.

• Platforms and devices that aggregate and analyze both historical and real-time data help retailers identify clear, actionable insights and maximize productivity, from warehouse fulfillment to devices on the sales floor.

Across the retail supply chain, deploying sophisticated technology can help retailers harness the power of their retail edge, elevating the basics to new levels.