



Grocery trends: Transforming the store

How grocers and mass merchants can embrace in-store technology to lower costs, improve margins, and enhance the experience



It's a digital world, even in the physical store. How can retailers embrace in-store technology to lower costs, improve margins, and enhance the experience?



57%
Tech enabled
in-store experiences
Are a top loyalty
factor for grocery
shoppers

Introduction

Our latest [consumer research](#) signals a warning for traditional retailers: in-store engagement is declining, with only 60% of consumers reporting significant interaction with physical stores—down from 66% in November 2023. Meanwhile, online shopping continues to rise, with 46% of consumers making digital purchases in November 2024, up from 36% the previous year.

Do these numbers mean shoppers are abandoning brick-and-mortar retail? Not necessarily. Instead, it highlights the need for retailers to rethink and redesign the in-store experience to better align with evolving grocery industry trends and consumer preferences.

In today's digital age, there's no such thing as "just a store." Modern retail spaces are evolving—from simple places to shop, to destinations for product discovery, personalized experiences, and value-added services.

And yet, many stores lack the digital components they need to deliver on consumers rising expectations and evolving preferences. This is especially true of the grocery and mass merchandise categories, where organizations have made substantial investments in digital solutions, but few technologies play a meaningful role in the store experience.

To stay competitive in 2025 and beyond, retailers—especially in the grocery and mass merch categories—need to recognize that it's a digital world, even in a physical store. In this article, we explore how grocers can rethink their approach to in-store technology, leveraging new and advanced digital solutions to solve the core challenges of the market and address the changing needs of consumers.

Digital transformation for grocery: How grocers and mass merchants can leverage digital technology to overcome core challenges

Below are seven common challenges and the innovative digital solutions that can help grocers and mass merchants stay competitive in a challenging landscape.

1. Improving gross profit margin
2. Food safety and traceability
3. Rising labor costs and talent shortages
4. Friction in the customer experience
5. Lackluster customer experiences
6. Technology sprawl
7. Shrink and waste

Challenge 1:

Improving gross profit margin

Amid rising supply chain costs, escalating last-mile delivery expenses and increasing labor demands that raise both the cost of goods sold and the cost-to-serve, grocers are struggling to maintain gross profit margins. In many cases, organizations have exhausted obvious opportunities to cut costs and customers can no longer tolerate price increases. At the same time, additional cuts will damage the customer experience.

This is forcing grocers to take a more innovative approach to improving profitability. Digital technology offers powerful solutions to this challenge by enhancing efficiency and optimizing operations.

For example, **AI-powered demand planning and smart inventory management solutions** can help grocers predict demand more accurately by incorporating a wider range of datasets, such as hyperlocal weather, regional events and holidays, and more specific segmentation of local behaviors and preferences that are either impractical or impossible to factor in manually. Improved accuracy offered by these tools would enable grocers to optimize stock levels and reduce waste, while automation could help reduce labor costs.

Generative or agentic AI-powered tools can also be used to automate recurring, tedious in-store tasks. For example, **dynamic pricing tools**, in conjunction

with electronic shelf labels (ESLs) and **connected POS systems**, can enable real-time pricing adjustments based on internal and external factors with limited or no human intervention. As a result, these automated tools can help unlock any number of cost savings, be it through reduced waste, lower labor costs, or efficiency gains, while also enabling top-line growth by allowing team members to focus on higher-value tasks.

Walmart, which recently announced plans to expand the use of [electronic shelf labels](#) to 2,300 stores by 2026, has seen major advantages from this technology. In an early deployment, the retailer found that ESLs have drastically reduced the time required for price changes—from two days to just two minutes—allowing employees to focus more on customer-facing tasks. Additionally, the system streamlines restocking and online order picking by using mobile apps to guide associates directly to the specific products that need replenishing or fulfilling.

Challenge 2:

Food safety and traceability regulation

Global food safety and traceability regulations present a growing challenge for grocers, requiring them to track inventory, monitor temperatures, and document compliance efforts with greater accuracy.

Manual processes are no longer sufficient, making digital solutions essential for meeting evolving standards and reporting requirements. To stay competitive, grocers must embrace technology that streamlines operations while ensuring compliance with complex regulatory frameworks.

For example, **digital traceability systems**, powered by **blockchain technology**, can streamline inventory tracking, providing accurate records of a product's origin and handling history. In-store technology, such as **IoT-enabled sensors** can automate some of the critical

activity related to regulatory requirements, such as monitoring refrigeration units in real-time and logging temperature data.

In challenging economic times, a key consideration for businesses is maximizing the value of investments by leveraging them across multiple areas. For grocers, this could mean extending food safety compliance investments to meet growing consumer demands for product and ingredient traceability.

Similarly, these efforts could be aligned with proactive strategies to manage product assortments, prioritizing and promoting ethically produced, sustainable, or health-focused items to address shifting customer preferences.

Regulation spotlight

US: Food Safety Modernization Act (FSMA)

By January 2026, any company involved in the food supply chain, including grocers, must maintain detailed records of food traceability to help improve food safety and enhance response efforts to food-related health events.

EU: Regulation (EU) 2019/1381, Transparency Regulation

This amendment to the General Food Law requires food businesses in the EU to make information about their activities available to the public, including data on food safety assessments, environmental risk assessments and the authorization of new foods.

UK: The Food Information (Amendment) (England) Regulations 2019, “Natasha’s Law”

This UK food safety regulation came into effect in 2021 and requires all food businesses to provide full ingredient lists and allergen labeling on pre-packed for direct sale (PPDS) foods.

India: Food Safety and Standards (Labeling and Display) Regulations, 2020

This regulation standardizes food labeling in India and establishes mandatory labeling requirements for food products, including ingredients, nutritional details, and allergens.

Challenge 3:

Rising labor costs and talent shortages

In Europe, the grocery industry’s biggest challenge is a labor shortage—a concern that is also impacting their North American counterparts. As a result, many stores are struggling to perform essential operational tasks such as stocking inventory and maintaining the store floor, while also providing a strong experience to the customer.

In-store technology can be leveraged to address both sides of the equation. For example, **robotics** can be used to automate routine and time-consuming tasks, like cleaning floors, stocking shelves, and monitoring planograms. At the same time, digital tools like **gen AI-enabled support apps** for employees, can help sales associates answer customer questions more quickly, completely and accurately.

For example, **Tally** is an in-store autonomous robot at **BJ’s Wholesale Club**. Tally makes its rounds several times a day, using computer vision and AI-enabled analytics to monitor shelves, alerting staff to items that need to be replenished. Through this automation, the retailer estimates that stores save 30 hours per week, redeploying employees to focus on higher-value, customer-facing tasks.

On the other side of the equation, **Target** is introducing the **Store Companion**, a generative AI-powered chatbot designed to assist store associates with process and procedure-related questions. The tool aims to streamline operations, improve efficiency, and enhance customer engagement by providing instant answers to common inquiries, such as how to sign up customers for a Target Circle Card or troubleshooting cash register issues. Additionally, the chatbot offers on-the-job learning resources, making it especially useful for new and seasonal employees.

Challenge 4:

Friction in the customer experience

For customers, visiting a store is a digital experience. Between looking up recipes, reading reviews, finding substitutions or conducting a price check, shoppers are digital consumers, even when they are in a physical store.

But, even though shoppers see stores as experiential, most are on a mission to get in and out as fast as possible—while still enjoying the time spent in the aisle. For this reason, it's important for grocers to introduce in-store technologies that will alleviate points of friction within the physical shopper journey.

For example, to streamline the checkout experience, **Sam's Club** recently opened a location in Grapevine, Texas that does [not use a traditional checkout system](#) at all. Instead, shoppers use the retailer's Scan & Go app to compile their order and pay. In the space normally occupied by the checkout stands, Sam's Club will feature online-only items that customers can purchase instantly for home delivery, which can be anything from artificial Christmas trees to luxury vehicles. This use of "people-led technology" illustrates how a solution can serve two purposes: enhancing the customer experience by eliminating wait times and enabling new and exciting cross- and up-sell opportunities.

Ahold Delhaize is also a leader in this area. The organization implemented [interactive kiosks](#) to streamline the deli counter ordering process—a notorious point of friction for shoppers. Deployed at 600 Giant, Martin's, and Stop & Shop locations, shoppers can scan their loyalty cards or enter their phone numbers to place deli orders in seconds at designated kiosks, which are located at store entrances and the deli counter. This allows customers to order upon entry and pick up their items on the way to checkout, significantly reducing wait times and creating a more convenient experience.

Other common in-store technologies may include **wayfinding apps** to help customers easily locate products within the store or **QR codes** to provide instant access to detailed product information, such as ingredients or sourcing, as well as related content, like recipes.



Grocery technology trends spotlight: Transforming the in-store shopping experience with Intermarché

Intermarché partnered with Capgemini and Shopic to revolutionize the in-store shopping experience with [the Smart Cart](#), an AI-powered solution that streamlines checkout and enhances customer engagement.

The Smart Cart uses computer vision and machine learning to automatically recognize items as shoppers place them in their carts. An integrated screen tracks spending in real-time, while also displaying personalized promotions and ads. When finished, customers simply scan a barcode at a dedicated terminal to complete their transaction—eliminating common checkout-related friction points.

Beyond improving convenience, the Smart Cart offers the operations team enhanced inventory automation and management, as store staff can monitor transactions and anticipate customer needs through an integrated app.

The results of the Smart Cart have been overwhelmingly positive: customer satisfaction is at 88%, with over 90% for returning shoppers. By integrating AI and automation, Intermarché is setting a new standard for seamless, data-driven retail experiences, not just in-store but in-cart!

Challenge 5: Lackluster customer experiences

Shopping experiences are becoming increasingly digital, even when it comes to traditional in-store journeys. For example, our most recent consumer trends research revealed that nearly one in four consumers are using generative AI to shop and 68% of consumers are prepared to act on its recommendations.

While retailers may think of generative and agentic AI-powered solutions, like **shopping assistants**, as digital customer touchpoints, in fact, they are also playing an important role in the store with both employees and customers. This is especially true when it comes to understanding product ingredients or learning about more complex issues like sustainability or fair trade.

Our research also reveals that consumers are willing to accept input directly from retailers during their shopping journey. For example, 53% want personalized in-store ads via a display in a smart shopping cart, smart mirrors, or interactive touchscreens. These in-store ads have a significant impact with 32% saying they discover new products this way.

In addition to enhancing the experience, **retail media networks (RMNs)**, platforms that leverage retailers' rich purchase data and owned channels to deliver highly targeted ads to drive sales, help large retailers to monetize their data and in-store infrastructure, often with higher margins than traditional retail operations.

For example, **Kroger** reported **\$1.3 billion** in operating profit in 2023 from its alternative profit businesses, including its retail media network, which is part of Kroger Precision Marketing. These gains were driven, in part, from the grocer's 2023 partnership with Cooler Screen to add digital smart screen advertising to refrigerator doors in 500 US stores.

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Challenge 6: Technology sprawl

Technology sprawl in retail stores—where outdated and disconnected systems remain in use—creates inefficiencies and frustration for workers who must navigate decades-old technology. Instead of streamlining operations, these legacy systems slow down processes, increase manual workloads, and hinder the seamless customer experiences that modern retail demands.

A key challenge grocers face is the use of disparate systems for managing e-commerce and store fulfillment. For instance, some companies rely on separate software solutions for distribution, e-commerce fulfillment, and warehouse operations. While these tools are effective individually, the lack of integration can hinder overall fulfillment optimization and lead to inefficiencies.

In-store technology can significantly enhance the in-store supply chain and fulfillment systems by improving real-time data visibility, streamlining inventory management, and enabling automation for processes such as order picking and replenishment. Automated order fulfillment systems, when integrated with **robotics** and **IoT devices**, can also reduce errors, speed up order processing, and ensure products are consistently available on shelves.

Grocers can also leverage AI-enabled “pick” route optimization to enhance in-store fulfillment for home delivery and click-and-collect orders. By analyzing store layouts and order patterns, AI can plan the most efficient walking routes for employees, minimizing time spent navigating aisles and maximizing order-picking efficiency. This technology can also intelligently split or consolidate picks, ensuring a smoother workflow and faster order processing—ultimately reducing the time and effort it takes for employees to pick an order while eliminating obstacles in the in-store experience for everyday shoppers.

Challenge 7:

Shrink and waste

Retail shrink, which for purposes of this discussion will include both waste and theft, has become an increasingly critical challenge for grocers in recent years. Rising food costs, coupled with higher levels of shrinkage from spoilage and theft, have strained profitability. Additionally, self-checkout systems, while convenient, are often linked to increased incidents of theft. This issue has been compounded in some regions, like the United States, where changes in petty theft laws have made shoplifting harder to deter.

To address theft, grocers can leverage digital solutions such as **checkout monitoring systems** equipped with **high-resolution cameras** or **computer vision** and **analytics** to flag suspicious behavior in real-time. **Advanced algorithmic software** can also analyze checkout data to detect anomalies or fraudulent transactions.

Going back to our earlier example of the recently opened **Sam's Club** location in Texas that replaces traditional checkouts with Scan & Go technology: To reduce the risk of shrink, the company is also [integrating computer vision at store exits](#) to automatically verify that shoppers have paid for their items.

To minimize waste, companies can also take a high-tech approach. For example, **Carrefour Belgium** has teamed up with Swedish food waste organization, Deligate, to introduce an [AI-powered solution for managing best-before dates at scale](#). This technology enables real-time inventory tracking, predicts shifts in demand, and helps make data-driven decisions to reduce the risks associated with overstocking.



Digital grocery, physical store: Using technology to drive efficiency and engagement

Modern retailers face a delicate balancing act—delivering exceptional experiences that meet customer needs for convenience, personalization, and seamless interactions, while optimizing operational costs amid growing macroeconomic issues, regulatory requirements, and mounting competition.

Technology plays a crucial role in bridging this gap, offering solutions that enhance both efficiency and engagement. However, investments in innovation must be carefully evaluated, as achieving both objectives often involves trade-offs between the two, as well as practical considerations related to budgets, adoption, integration and complexity.

For grocers and mass merch retailers, success requires a digital-first mindset, even within their physical stores. By integrating advanced in-store technologies, they can not only meet grocery market trends and shifting consumer expectations but also create transformative shopping experiences that drive loyalty and long-term growth.



Grocery trends 2025: Tackling grocery challenges with Capgemini

The current grocery landscape presents a significant challenge—consumers have limited spending power, while manufacturers struggle to maintain margins without raising prices. For grocers, this reality is driving the urgent need for transformational cost reductions, omnichannel growth, and a stronger connection to purpose.

At Capgemini, we believe that focusing on these three areas is the key to future success.

Adapt to compete

Digital Core for Grocery



Digital Core for Grocery enables grocers to transform their digital infrastructure, leveraging data-driven insights to drive resilient innovation, anticipate and influence grocery market trends, optimize operational efficiencies, and enhance customer-centricity.

[Learn more.](#)

Intelligent Supply Chain



Capgemini works with retailers to build intelligent, adaptable supply chains by leveraging AI-driven insights, collaborative ecosystems, and new strategies—helping organizations navigate disruptions, enhance efficiency, and deliver innovative, cost-effective products that exceed consumer expectations.

[Learn more.](#)

Capgemini's Consumer-Centric Grocery Fulfillment



Consumer-Centric Grocery Fulfillment is a new offer that helps grocers leverage advanced data capabilities and transformative technologies to create profitable and sustainable digital grocery offers. We work with clients to develop and implement a customer-first strategy, as well as underlying data-led capabilities, to recapture lost profit and reposition digital channels as a growth engine.

[Learn more.](#)

Lead with purpose

Food Waste Reduction



Capgemini offers a range of solutions to help retailers reduce food waste across the supply chain by leveraging product innovation, sustainable packaging, smart inventory management, rescue and reuse strategies, and consumer behavior insight.

[Learn more.](#)

Unlock channel growth

Retail Media Networks (RMN) by Capgemini



Capgemini's end-to-end RMN solution helps retailers launch and scale RMNs to unlock new revenue streams, enhance customer experiences, strengthen brand collaborations, and drive higher margins—ultimately optimizing ROI and accelerating growth in this fast-expanding market.

[Learn more.](#)

Connected Commerce



Connected Commerce is Capgemini's strategic framework for helping our consumer-facing clients upgrade their go-to-market capabilities to compete and win in the new more ecosystem-led generations of retail. With this framework, we help brands tap the power of the new retail models that will be responsible for the majority of sector growth in the coming years.

[Learn more.](#)

Capgemini is an end-to-end transformation partner that helps grocery clients thrive in an ever-changing market. We bring together deep expertise in strategy, customer experience, data, technology and AI, and

supply chain, as well as extensive grocery sector expertise and a robust partner ecosystem, to help our clients overcome their most pressing challenges, in stores and beyond.

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About Capgemini

Capgemini is a global business and technology transformation partner, helping organizations to accelerate their dual transition to a digital and sustainable world, while creating tangible impact for enterprises and society. It is a responsible and diverse group of 340,000 team members in more than 50 countries. With its strong over 55-year heritage, Capgemini is trusted by its clients to unlock the value of technology to address the entire breadth of their business needs. It delivers end-to-end services and solutions leveraging strengths from strategy and design to engineering, all fueled by its market leading capabilities in AI, generative AI, cloud and data, combined with its deep industry expertise and partner ecosystem. The Group reported 2024 global revenues of €22.1 billion.

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