

How AI agents will reshape retail

Retailers anticipate a shift as autonomous agents take on routine work, support staff and help to protect margins



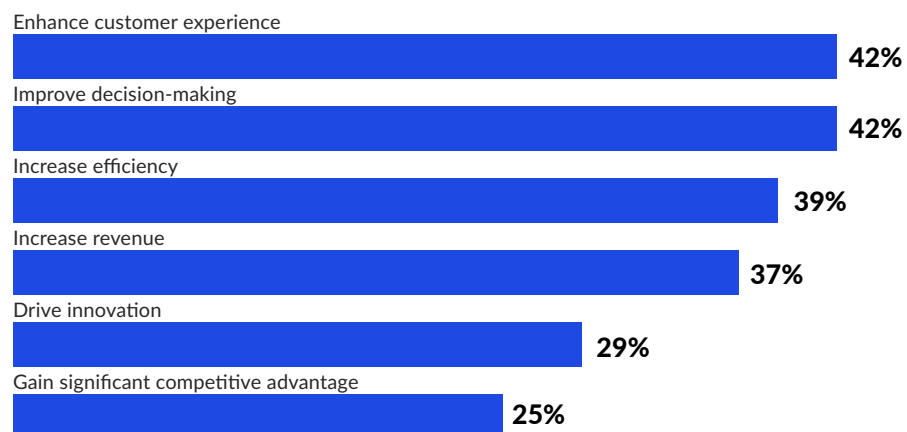
For retailers, the online-to-in-store journey is a familiar point of friction. The interaction appears straightforward—a customer researches a product online, walks into the store and completes the purchase with a member of staff. Yet, behind the scenes, each transaction triggers a series of staff-driven tasks: pulling up product history, reconciling online and in-store pricing or promotions, checking inventory across locations, and tailoring recommendations in real time. Interactions such as these stand to benefit most from agentic AI.

AI agents are software applications that leverage generative AI and machine learning to autonomously navigate complex, multi-step tasks that span systems, data sources and handoffs. They have awareness of business contexts and can act proactively or reactively. They can also work in unison, or collaborate with human staff on more difficult assignments.

Because the retail sector is both data-heavy and operationally complex, it is well suited for agentic AI across the customer journey. Capabilities such as inventory management, assortment planning, merchandising, and pricing and promotions can be connected, with a direct impact on margins as well as customer experience.

What retailers want from AI

Some of the goals retail decision-makers cite for AI adoption:



Source: KPMG, "Intelligent Retail", 2025.

AI agents are increasingly built into industry software-as-a-service (SaaS) platforms, allowing them to operate across the retail journey.

“We’ve already started seeing customer service agents handle product availability, shipping status and warranty information, helping reduce customer frustration and improve transparency,” says Duleep Rodrigo, sector lead, consumer & retail, KPMG US. “There’s a role for AI agents to triage issues and escalate complex issues to human agents. Among others, there’s a role for agents in product forecasting, replenishment and demand planning.”

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Duleep Rodrigo, sector lead, consumer & retail, KPMG US

Used in this way, agentic AI can shorten processing times and improve data quality, helping retailers to streamline processes across pricing, fulfilment and in-store experiences.

For example, when a customer researches a product online and later visits a store to purchase it, an agentic agent can connect that digital behaviour with real-time inventory and pricing data, equipping shop staff with relevant context. As the employee engages with the customer, the system can suggest complementary products, identify current promotions and highlight availability, leading to more personalised, higher-value interactions.

Getting the infrastructure right

Although agents can act independently, they do not operate in isolation. They work best when embedded into a retailer’s core technology, rather than as bolt-on applications. Infrastructure needs to be primed for autonomy, not just automation.



“Agentic AI shouldn’t just live on top of infrastructure, it should be part of the infrastructure,” says Paul Woodward, global vice president of retail product, Oracle. “The requirements extend beyond compute and storage. You need an environment where agents can perceive and decide, act and even learn across the distributed retail ecosystems.”

A core strength of agentic AI is its ability to draw data from multiple enterprise systems simultaneously, from enterprise resource planning and inventory platforms to loyalty systems and sales enablement tools used on the shop floor. Rather than replicating data into a single repository, agents can access governed data where it lives, reducing latency and compressing cycle times while improving decision quality.

Supply chains are a critical part of this picture. Agents can pull or push data between suppliers, distributors and marketing platforms. The data even extends to customers, as shoppers may have their own personalised agents to find deals or complete purchases.

As agents take on manual work around sourcing, product attributes and supplier compliance, efficiency can improve. With accurate product data consistently available across digital and physical channels, handoffs are smoother as customers move from online research to in-store purchases. Oracle estimates that better supply-chain collaboration can cut the time spent managing products and attributes by almost 50%.

“Agentic AI changes the operating model,” says Patricia Nugent, industry executive director of retail and hospitality, Oracle. “Instead of humans stitching together decisions across systems, agents can reason across applications and act in real time.”

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The shift from delayed co-ordination to continuous execution is where retailers see the biggest impact. To achieve real-time relevance, retailers need to reduce latency and ensure agents have access to live operational data.

Rethinking retail workflows

Agentic AI is an opportunity to rethink old workflows. Retailers must map processes end to end, identify bottlenecks and address customer pain points. Staff remain essential, but their roles are likely to change as routine processes shift to off-the-shelf agents and custom applications. In many cases, this means redesigning processes around outcomes rather than departments, a shift that traditional automation has struggled to support.

Which processes are a good fit for agentic AI?

Type of process		Retail example
Data-intensive tasks that require analysis and adaptive responses		Inventory management across multiple stores
Rule-governed tasks that may have edge cases		Online-only offers, loyalty tiers, regional pricing, bundle rules
High-volume tasks that strain staff		Seasonal repricing
Multi-step tasks that cross different departments and data sources		Promotions

Source: Oracle

Human oversight is still required in areas such as merchandise planning, brand strategy and VIP programmes. On the front line, however, retail staff can see direct benefits as data-driven precision is applied across daily store operations, from checkout to replenishment. Agents can give staff a 360-degree view of each customer, enabling more informed conversations, tailored recommendations and more personalised experiences.

There is also the question of how agents can adapt when unusual situations arise. Although agents will be able to recognise such situations, the response may entail human intervention.



“Retail rarely operates under normal conditions,” Ms Nugent says. “Resilience comes from fallback policies that escalate to humans when confidence falls below a threshold.”

In the short term, KPMG’s Mr Rodrigo believes retailers are likely to be looking to agentic AI to drive operational efficiency gains. Over time, he sees it informing product development, speeding up launches and supporting clearer strategic choices.

Ultimately, he says, agentic AI may be necessary to keep customers happy. “Convenience with AI will continue to resonate with consumers,” he explains. “So it’s not going to be a ‘nice to have’—it’s going to be a ‘must-have’ for retailers and consumer goods companies.”

Finding the right AI technology and services providers

Retail organisations that embrace agentic AI are streamlining workflows to improve everything from inventory management to merchandising, while delivering personalised customer experiences. Oracle and KPMG firms combine deep industry experience with AI-powered Oracle Fusion Cloud Applications, Oracle AI Database and Oracle Cloud Infrastructure, helping retailers to:

- Boost operational efficiency by using pre-built AI agents or developing custom agents
- Deliver seamless, personalised digital experiences
- Uncover AI-powered innovation to help maximise value from technology investments

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