



AI in Retail: In Pursuit of Meaningful AI Adoption

In an AI-obsessed world, retailers are racing to highlight their organizations' artificial intelligence adoption and capabilities. But meaningful business impacts remain limited. In this report, we draw on survey responses from corporate leaders involved in implementing AI to evaluate where retailers stand, barriers to successful implementation, and how various types of retailers can capture lasting value by embedding AI within a clearly defined operating model.

Artificial intelligence is widely seen as the retail industry's latest savior—and with good reason.

AI-powered customer chatbots and shopping assistants can reinvent the consumer experience. Generative AI can streamline product design and descriptions. AI-supported dynamic pricing and demand forecasting can increase revenue and drive supply chain efficiencies. This isn't just fantasy: for instance, AI-driven personalization tools—including detailed beauty profiles, color match technology, and customer behavior analytics—at Sephora [increased](#) average order values by 25% and customer satisfaction by 20%.

But executives need to remain hyperfocused to realize these benefits, leverage AI for tangible business impacts, and ensure implementation doesn't falter due to poor infrastructure, data quality, or operational misalignment.

Findings from our new survey help tell this story, drawing on insights from retail leaders across verticals ranging from fashion and health to general merchandise and grocery. We'll reveal where organizations may be overconfident in AI adoption, identify crucial implementation challenges, and share important takeaways to ensure meaningful AI transformation in the years to come.

Note: The findings highlighted in this report focus on North American respondents. Charts included in this report include data from North America only. For notable Europe and Asia-Pacific (APAC) differences, see key finding no. 5. For more information about the report's respondent base, see the methodology section on page 10.

Retailers are staking their hopes on AI's transformative potential—and suppliers are eager to cash in, with the global AI retail market [projected](#) to top \$40 billion by 2030.

Given the hype, retail leaders need to understand how peers are using the technology. Significant implementation barriers remain, including data privacy, workflow integration, compliance, and a lack of operational readiness.

Our research provides a crucial benchmark. Below we review five key takeaways.

Key Findings

1. AI adoption is surging—but retailers may overestimate meaningful impact.
2. Generative AI implementation outpaces predictive and agentic.
3. Top AI benefits: improved operational agility and marketing/digital performance.
4. Retailers appear confident in AI policies despite coverage gaps.
5. European and APAC retailers trail North American counterparts in AI implementation and policy coverage.



1. AI adoption is surging—but retailers may overestimate impact.

More than eight in ten respondents have implemented AI to a large or moderate extent. Nearly half (48%) say AI is active in most core functions of their retail operations, while 34% say it is active in several functions but not across the organization.

Here’s how most North American retailers *currently* use AI:

- Marketing: 70%
- IT/digital: 62%
- Digital commerce: 56%
- Merchandising strategy and pricing: 54%

Here’s how most *plan* to use it:

- Planning and product flow: 40%
- Corporate functions: 38%
- Supply chain and sourcing: 36%
- Distribution and logistics: 32%

Usage doesn’t necessarily translate into tangible business impacts, however. For example, the widespread use of ChatGPT and Copilot for relatively mundane tasks like drafting product descriptions, purchase orders, or marketing copy may offer some value. But is it a foundational shift?

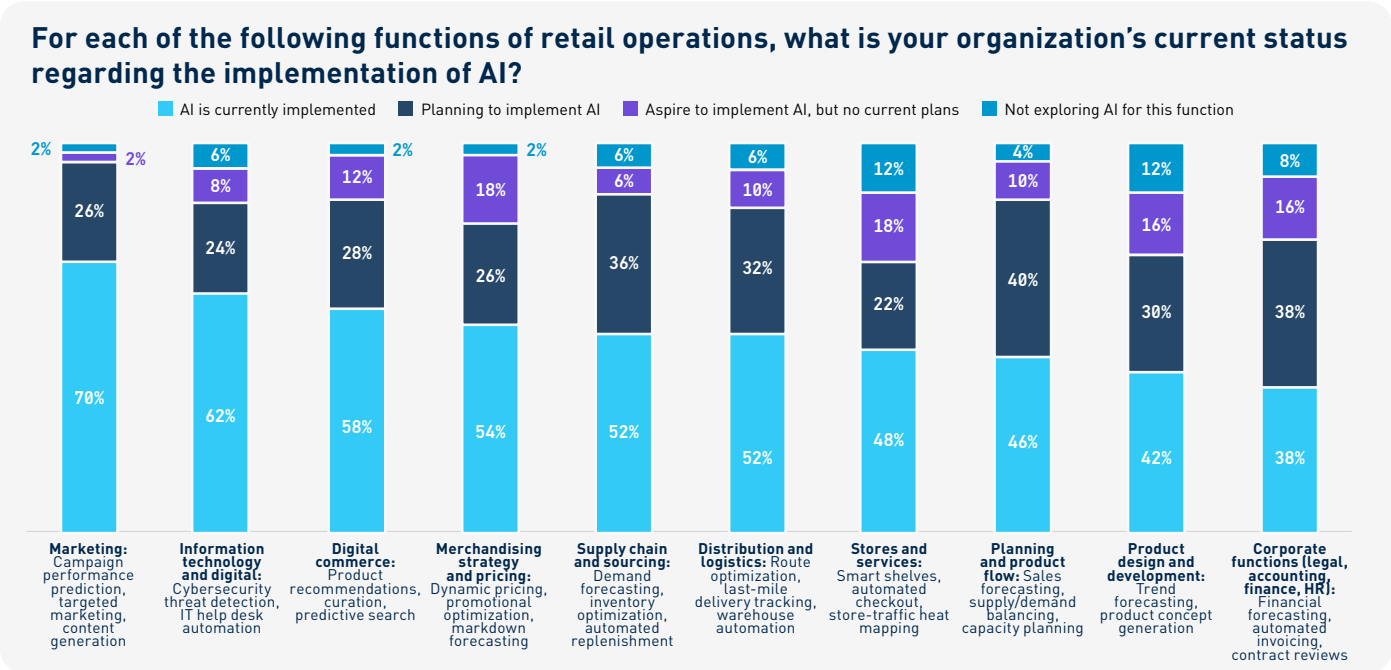
After all, the real return on investment (ROI) isn’t only in the capabilities retailers *add* via AI, but in what it allows

them to *stop doing*. An AI agent is great—but if you’re still relying on traditional customer service lines, and the new technology creates operational hurdles, the organization isn’t maximizing the technology’s potential.

Additionally, the top executives who comprise the majority of our respondents—80% are in the C-suite or president/owner/founder—may lack an in-depth view of how AI is being used on the ground, especially in an age where most software claims to include some aspect of AI.

That said, some retailers are implementing AI effectively. Sam’s Club is [reinventing](#) checkout lanes across six hundred stores using AI-enhanced Scan & Go app validation. Levi Strauss [uses](#) generative AI to produce first drafts of product descriptions and translations. German grocery chain REWE [leveraged](#) AI-powered demand forecasting to reduce the number of unavailable items by half and is adopting AI at self-checkouts to prevent theft.

Notably, these headlines focus on large retailers, which are more likely to have the resources to develop, test, and launch AI initiatives than their small- or medium-sized counterparts. More general data sets support the notion that size matters when it comes to AI implementation: a 2025 National Federation of Independent Business survey [found](#) that only 24% of smaller companies said they used any form of AI in their operations, while a 2024 Stanford study [revealed](#) that 78% of all corporate organizations were using AI.



KEY FINDINGS

Retailers are staking their hopes on AI's transformative potential—and suppliers are eager to cash in, with the global AI retail market projected to top \$40 billion by 2030.

Grand View Research, *Artificial Intelligence in Retail Market (2025-2026)*, market analysis report (October 2024).

2. Generative AI implementation outpaces predictive and agentic.

We asked respondents who have implemented AI which *type*—predictive, generative, or agentic—they used in various functions.

Among North American retailers, generative AI was the most deployed system for functions including IT/digital, marketing, merchandising strategy and pricing, stores and services, and product design and development. This tracks with the types of tasks at which generative AI excels: content creation, personalization, ideation, and coding.

Predictive AI was more common in data-heavy, operations-driven areas where the core need is to forecast and optimize: distribution and logistics, supply chain and sourcing, and planning and product flow.

Generative and predictive AI were used equally as much in corporate functions and digital commerce.

Agentic AI is still in the early adoption phase. The only area where more than one-half of respondents implemented agentic AI was IT/digital, likely to support IT helpdesks.

DEFINITIONS

Predictive AI: uses statistical methods, machine learning, and data mining to analyze historical data and forecast future outcomes or trends.

Generative AI: produces new content—such as text, images, or audio—by learning patterns from existing training data.

Agentic AI: is capable of autonomous decision-making, initiating actions and pursuing goals with limited human interaction.



Key AI Opportunities by Retail Subsector

- *Process flow automation* to reduce data entry and off-systems data manipulations to feed to the next systems. This is a significant resource drain on many retailers and a prime area for AI enhancement.
- *More dynamic demand planning* using predictive AI to leverage real-time store- and channel- level data—as well as external data—to deliver more nimble execution of buys, allocations, markdowns, and promotions.
- *Enhanced customer engagement* beyond traditional marketing to strengthen customer relationships, deliver seamless omnichannel experiences (e.g., virtual try-ons in the fashion sector) and personalized services, and establish reliable product reviews/feedback.
- *Enhanced supplier management and supply chain oversight* to process vast amounts of data points that can influence a supply chain (e.g., routes, delays, country-level macro factors, port congestion) to show what is happening in real time—enabling executives to make smart decisions quickly.
- *Enhanced design processes* that eliminate the need for manual sketches. With AI, designers can easily add and remove product features and colors.
- *Improved pricing and promotion strategies* to quickly understand what drives incremental gross margins versus costing money.

3. Top benefits: improved operational agility and marketing/digital performance.

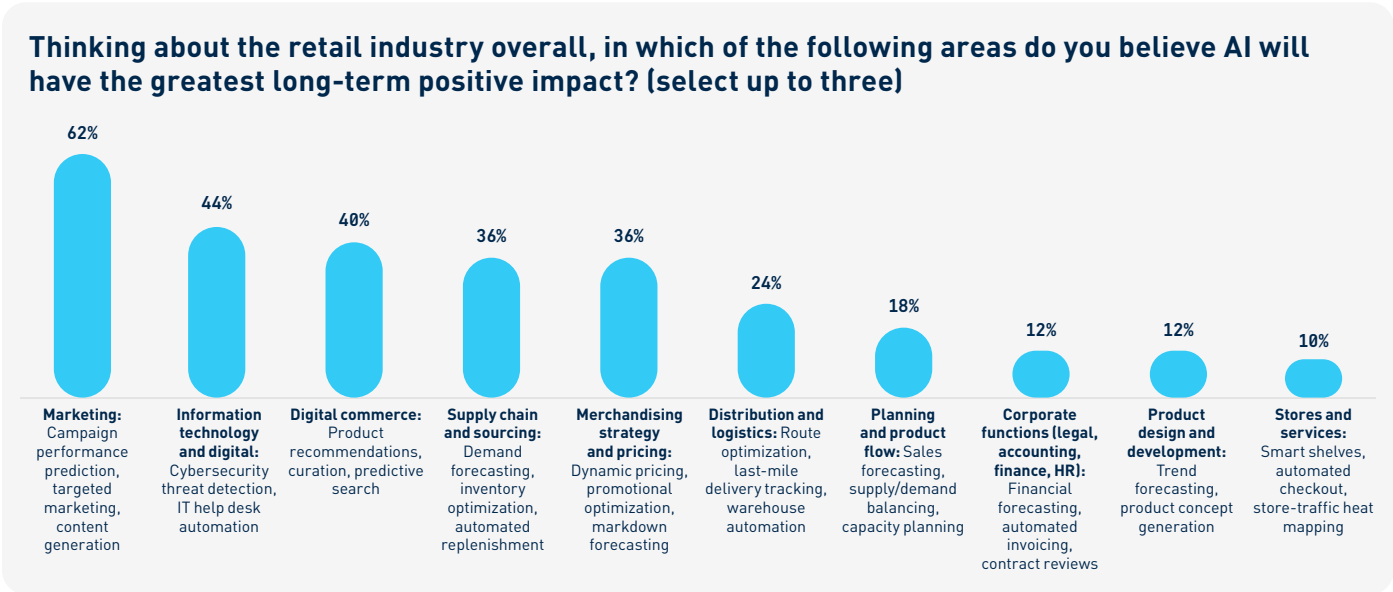
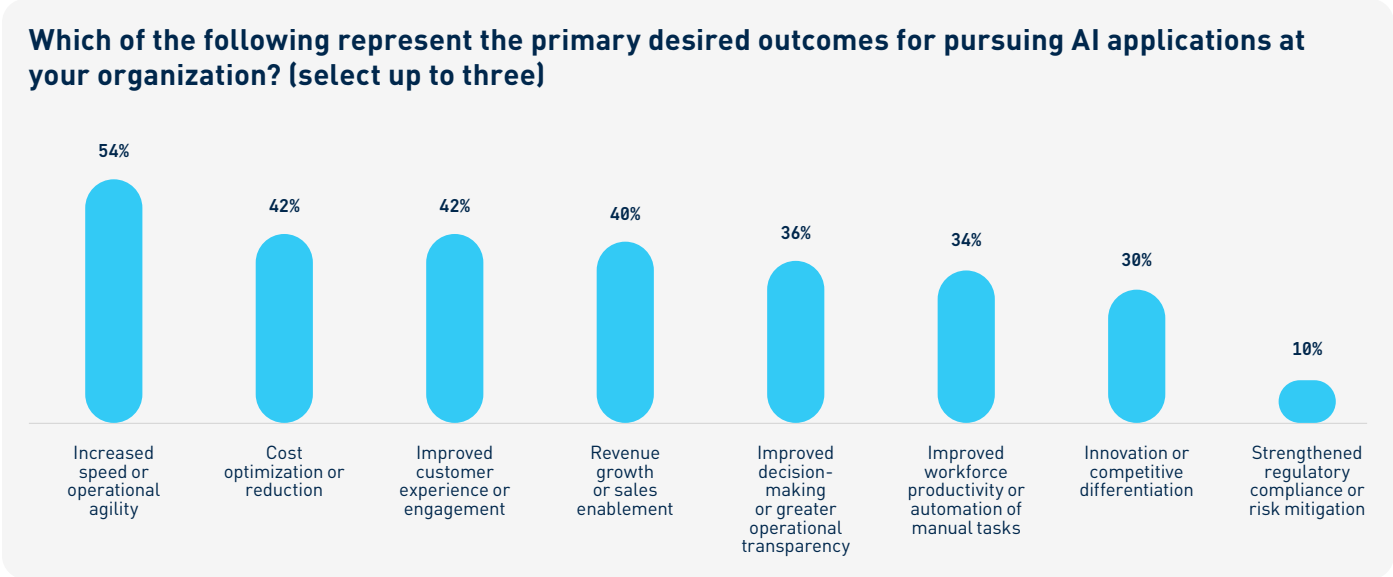
Why do retailers pursue AI? The most desired outcomes in North America were:

- Increased speed or operational agility (54%)
- Cost optimization or reduction (42%)
- Improved customer experience or engagement (42%)

While 40% cited revenue growth/sales enablement, the fact that this area ranked fourth suggests room for improvement in applying AI to drive meaningful business impacts. Moving forward, that group expects AI to have the greatest impact on:

- Marketing (62%)
- IT and digital (44%)
- Digital commerce (40%)

These latter results track with the areas in which most retailers have already implemented AI, validating their current investments while perhaps hinting at missed opportunities for AI use in other areas.



4. Retailers appear confident in AI policies despite coverage gaps.

The rapidly evolving regulatory landscape creates risks for retailers adopting AI, from data privacy and algorithmic pricing and bias to intellectual property (IP) and corporate governance gaps. Compliance is especially complex in the United States where, in lieu of federal law, [thirty-eight states](#) have adopted or enacted approximately one hundred AI-specific measures in 2025 alone. For instance, New York’s Algorithmic Pricing Disclosure Act [mandates](#) that retailers disclose when pricing is determined by algorithms using personal data.

US-based retailers with global operations face a particularly complex regulatory patchwork. They must deal with both state and international laws, such as the European Union’s AI Act.

It follows that just 52% of North American respondents said their AI policies are comprehensive and adaptable to regulatory change. Fewer than half (46%) said their policies cover current risks but may require updates.

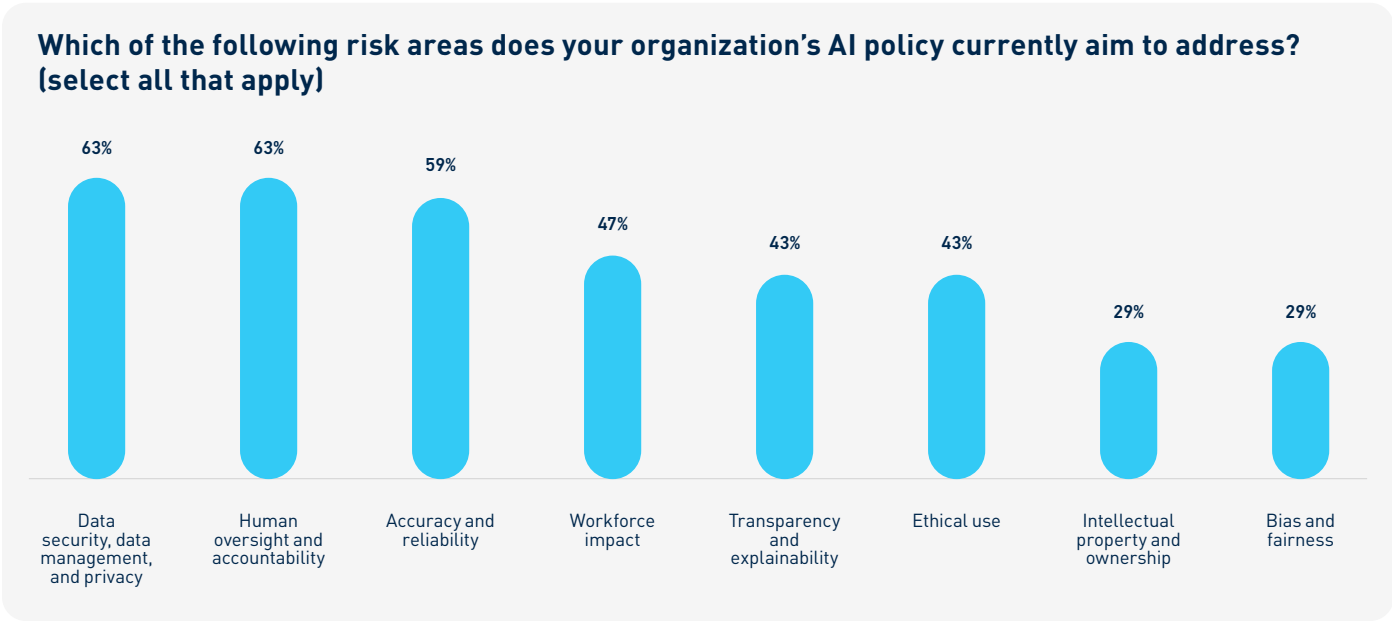
While AI policies do aim to address risk in key areas—including data security, management, and privacy (63%), human oversight and accountability (63%), and accuracy and reliability (59%)—other areas fell short. Fewer than half of respondents selected workforce impact (47%), transparency and explainability (43%), ethical use (43%), IP and ownership (29%), and bias and fairness (29%).

52%

say their AI policies are **comprehensive** and **adaptable** to regulatory change.

46%

say their AI policies cover **current risks** but may require **updates**.



5. European and APAC retailers trail North American counterparts in AI implementation and policy coverage.

Our report to this point has focused on data from North American retailers. To offer a snapshot of AI adoption across the globe, this section highlights differences among retailers from Europe and APAC.

Overall, retailers from Europe and APAC reported less AI adoption than North American counterparts across most key functions. For instance, of all surveyed regions, European respondents report the lowest level of AI implementation in the following retail functions:

- Digital commerce (40%)
- IT and digital (36%)
- Marketing (32%)
- Merchandising strategy and pricing (32%)

This group anticipates AI will have the greatest long-term benefit in distribution and logistics, which may be understandable amid ongoing regional supply chain disruptions. Distribution and logistics was also among the leading functions where European retailers already have implemented the technology.

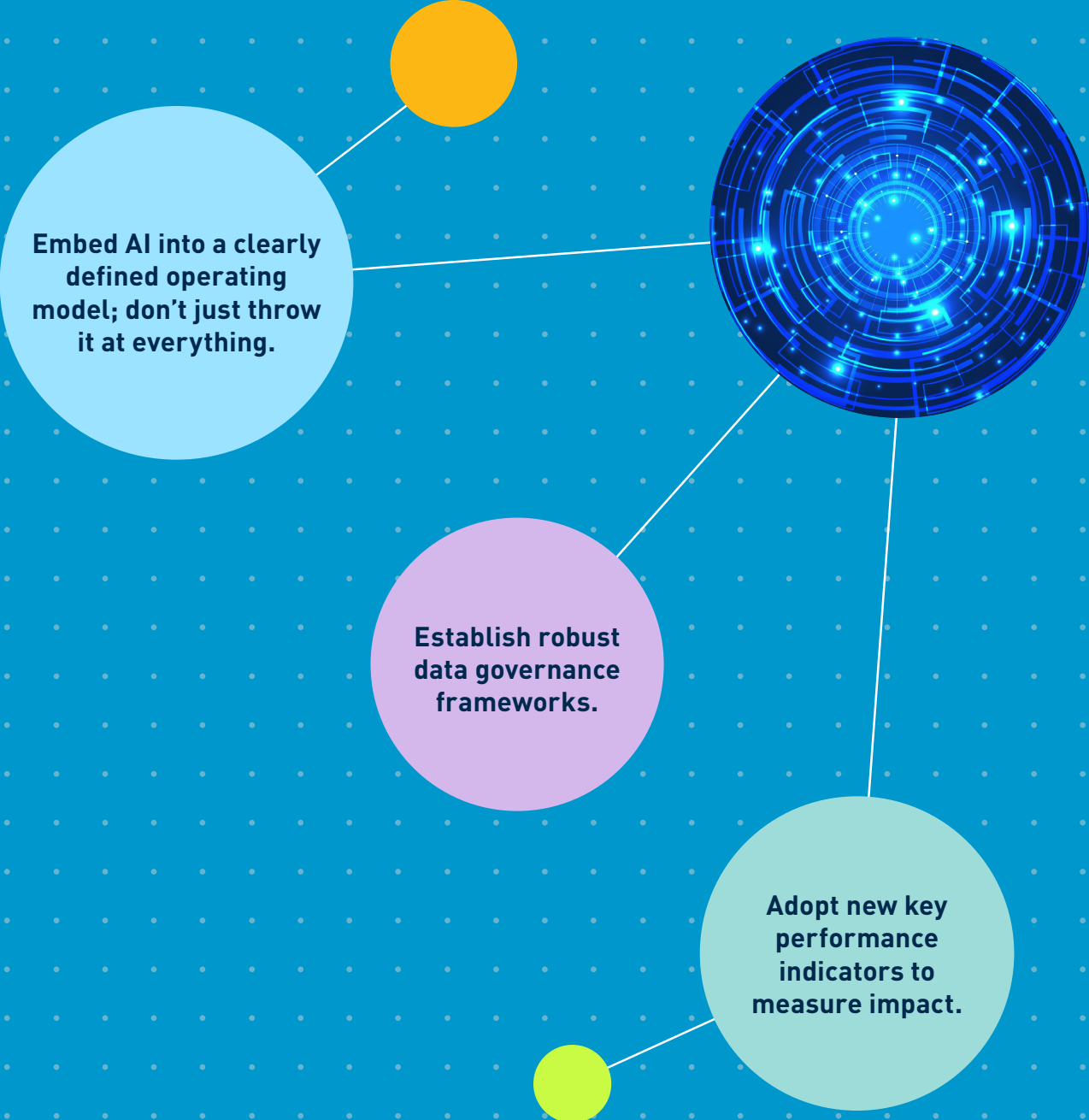
APAC respondents, by contrast, have the lowest level of AI implementation for these retail functions:

- Stores and services (32%)
- Planning and product flow (28%)
- Corporate functions (20%)

The most common APAC implementation area, and the largest share of any regional group, was IT and digital (68%)—likely a result of persistent cybersecurity threats. Importantly, APAC respondents on average tended to be the least bullish overall about AI's long-term industry benefits.

Finally, a lower share of European and APAC retailers view their AI policies as fully equipped to manage risk in a changing regulatory landscape compared to their North American counterparts. This may simply be because governments in these regions have been stricter with [AI regulation](#) than in the US.





The diagram features a central hub on the right, which is a circular graphic with concentric rings and glowing blue dots, resembling a futuristic data center or a complex network. Four lines radiate from this hub to four colored circles: a light blue circle at the top left, a purple circle in the middle, a teal circle at the bottom right, and a yellow circle at the bottom. Each circle contains a specific best practice for AI adoption. The background is a solid blue color with a subtle pattern of small white dots.

Embed AI into a clearly defined operating model; don't just throw it at everything.

Establish robust data governance frameworks.

Adopt new key performance indicators to measure impact.

Best Practices for Retailers Adopting AI

Best Practices for Retailers Adopting AI

Our findings and BRG's firsthand retail-sector experience suggest a potential gulf between executives' vision of AI use and actual execution—the [so-called](#) “‘last mile problem,’ where promising technologies fail when they meet the messy reality of legacy systems, data governance, and real-world constraints.”

Poorly implemented AI can create more confusion than clarity. For instance, AI can be massively beneficial in pricing: retailers can use the technology to act more precisely on promotions that drive real results. But companies often bring in applications and run them in siloes with existing planners/merchandisers using traditional processes, and in the end no one knows what the prices should really be.

To maximize the potential of AI, retailers should consider three high-level best practices:

1. Embed AI into a clearly defined operating model; don't just throw it at everything.

More AI startups come online each day. It can be tempting to make investments first and figure out how to integrate the technology later. But those efforts will rarely change how work is done in a transformational way.

To achieve real ROI—tighter demand plotting, shorter lead times, higher sales, better margins—organizations should prioritize AI investments that address specific business problems. Companies should fit AI into a clearly defined target operating model rather than force the technology into what they're already doing. AI is not cheap, and payback periods vary drastically; retailers must have a clear roadmap with well-defined business cases, ROIs, and pilots to test and launch their AI initiatives.

Companies must address organizational processes and upskill employees to fully leverage and manage AI as part of AI adoption. Retailers need to think about how managerial skillsets may shift to manage AI and how the new technology could impact employees' roles and responsibilities.

2. Establish robust data governance frameworks.

As AI adoption increases, the need for governance and compliance goes up in kind. Poor-quality data and governance hinder AI success: just 12% of data analytics professionals in a [2024 survey](#) said their organizations' data was of sufficient quality and accessibility for effective AI implementation.

Clean, accurate, and compliant data is vital. While some AI engines can be used to clean up data, any adoption of AI should include plans for data cleansing, enhanced attributions, and data connectivity.

3. Adopt new key performance indicators to measure impact.

Retailers may want to explore the following key performance indicators (KPIs) :

- *Average order value*: does personalization or dynamic pricing increase basket size?
- *Customer retention/repeat purchase rate*: improved loyalty driven by better recommendations or service.
- *Inventory turnover rate*: optimized demand forecasting and replenishment.
- *Forecast accuracy*: variance between predicted versus actual demand.
- *Labor efficiency gains*: percentage of tasks automated (e.g., shelf scanning, checkout, call center volume deflected).
- *Gross margin improvement*: uplift from pricing optimization or cost savings.
- *Revenue attributable to AI*: incremental sales tied to AI-driven recommendations, campaigns, or automation.

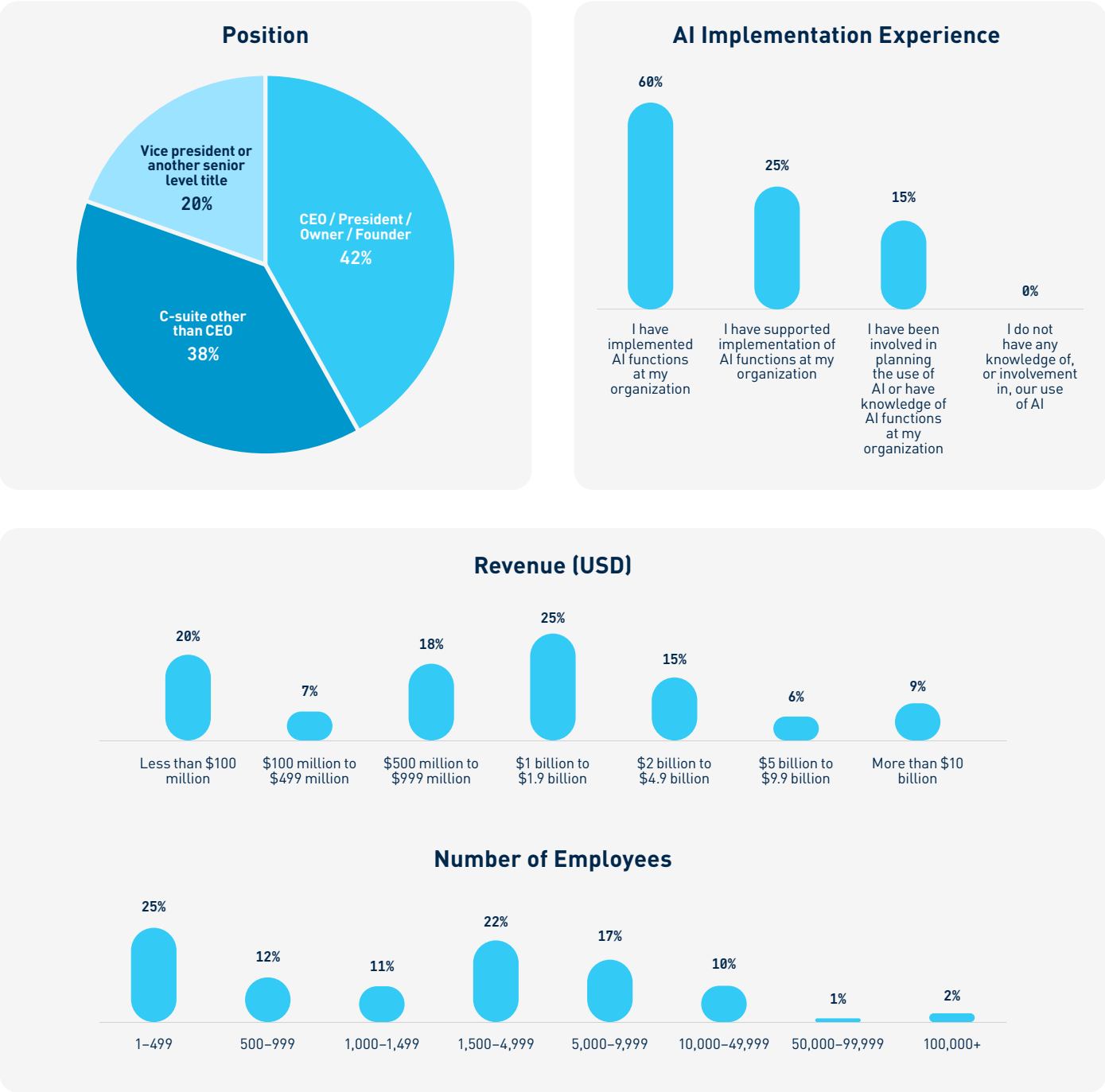
Executives should pick three to five core KPIs per AI initiative, measuring pre- and post-AI performance and defining critical guardrails for each use case (e.g., bias, compliance, error costs).

Methodology

The research for this report was conducted in August 2025 via a quantitative survey of one hundred executives and corporate leaders across North America (fifty respondents), Asia-Pacific (twenty-five), and Europe (twenty-five). Respondents held leadership positions at their organizations and were involved in their organizations' AI implementation efforts.

This is the first edition in a BRG series of reports that will track AI's influence across key industries.

Due to rounding and questions asking for more than one response selection, data may not add up to 100%.



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