



2025 OBSERVABILITY FORECAST



RETAIL AND ECOMMERCE

The retail industry faces a reset, demanding

EFFICIENCY & FLAWLESS CUSTOMER EXPERIENCES

amid economic pressures.

This report, drawing insights from 147 leaders, shows how observability helps protect margins, streamline systems, and deliver exceptional customer journeys.

Key findings

TOP DRIVER FOR ADOPTION

50%

cite AI as the primary driver for observability

Half of retailers cite AI as a primary driver reflecting its growing role in reshaping retail operations

TOOL CONSOLIDATION

5.9

tools

2022

3.9

tools

2025

The average amount of tools used by retailers is down with a preference towards unified platforms

MEDIAN OUTAGE COST

\$1M
per hour

Retail

\$2M
per hour

Other industries

The median hourly cost of a high business impact outages is \$1 million, compared to \$2 million for all industries

RETURN ON INVESTMENT



46%

report an ROI of 2x or higher from their observability spend

OBSERVABILITY: THE CORE BUSINESS ENABLER



By 2028

90%

of retailers anticipate deploying AI monitoring, APM, dashboards, and DEM

Overview

The retail industry is in the middle of a fundamental reset. Consumers are demanding personalized, seamless shopping experiences across every channel, while retailers are facing mounting macroeconomic pressures—inflation driving price sensitivity, tariffs reshaping supply chains, and loyalty dynamics pushing customers towards value over brand preferences.

For retailers this means two things:

- 1. Operational efficiency is tied to survival:** Protecting margins requires cutting costs, streamlining systems, making data-driven pricing and supply chain decisions
- 2. Experience is the differentiator:** Customers expect a flawless journey—whether browsing on a phone, checking inventory online, or completing a purchase at a physical store

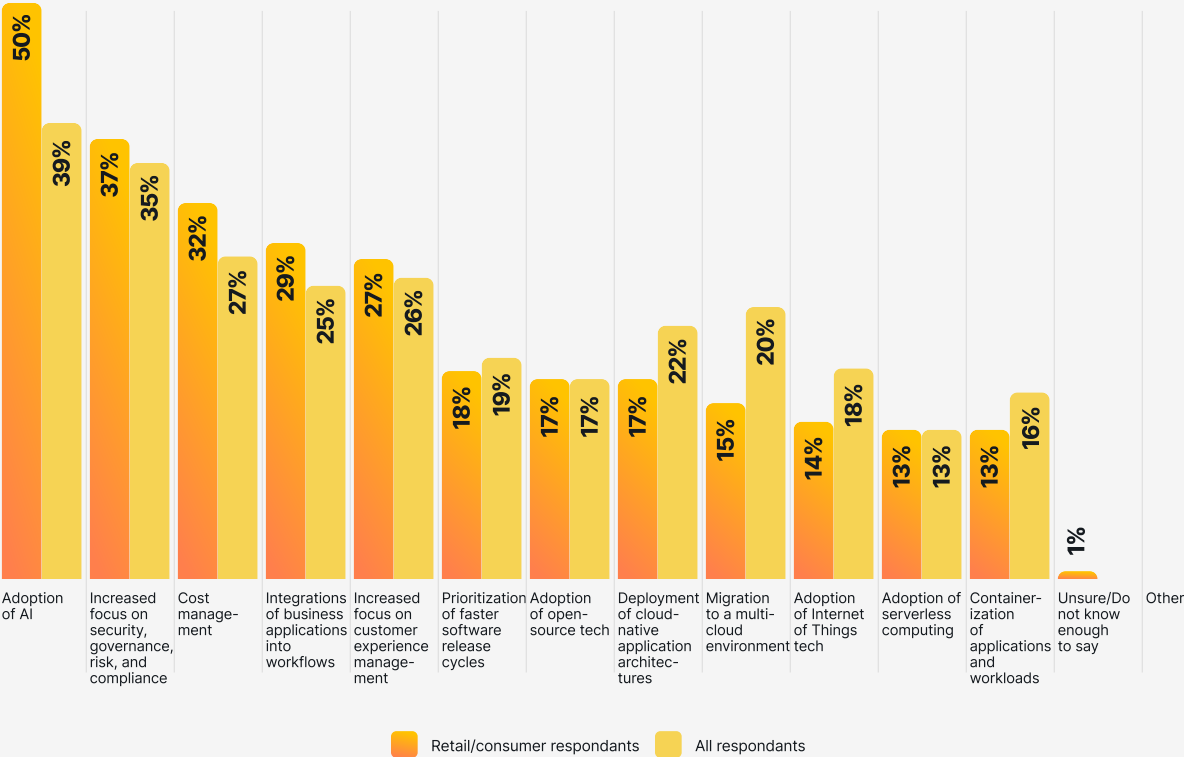
The complexity of omnichannel operations makes observability mission-critical. Without unified visibility across e-commerce sites, POS systems, fulfillment APIs, and cloud infrastructure, retailers risk lost sales, churn, and reputational damage. To keep digital storefronts running smoothly and customers engaged, many are adopting observability platforms that provide complete visibility into complex technology stacks. These tools gather and visualize data, apply intelligence, and enable organizations to understand ecosystem behavior, rapidly identify issues, and resolve them before they escalate.

This report highlights how the retail and eCommerce sector is adopting observability and the business value it delivers, drawing insights from 147 respondents surveyed for the *2025 Observability Forecast*.

TRENDS DRIVING OBSERVABILITY ADOPTION

AI has emerged as the most prominent catalyst for observability adoption in retail.

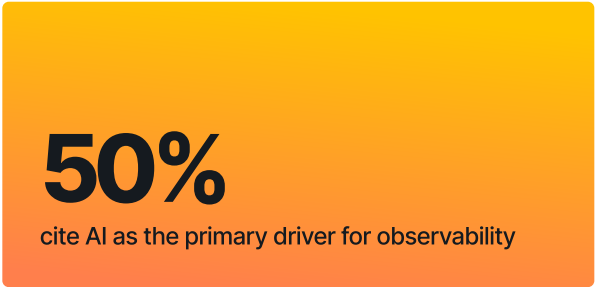
Technology strategies and trends driving the need for observability



In 2025, 50% of retail respondents said AI was the top reason for needing observability—11 points higher than the all-industry average. Retailers see AI as the lever for automating troubleshooting, accelerating post-incident reviews, and powering remediation actions like rollbacks or configuration updates.

While AI is leading the charge, traditional business pressures remain. 37% of retailers still cite governance, risk, and compliance as a top driver (down from last year's peak), while cost management (32%) and workflow integration (29%) are increasingly important as inflation and tariffs reshape margins. Customer experience is also on the rise as a motivator: more than a quarter (27%) of retail respondents now point to customer experience management as a primary reason for adopting observability, reflecting the reality that shoppers have zero tolerance for failed checkouts or laggy mobile apps.

Top driver for adoption

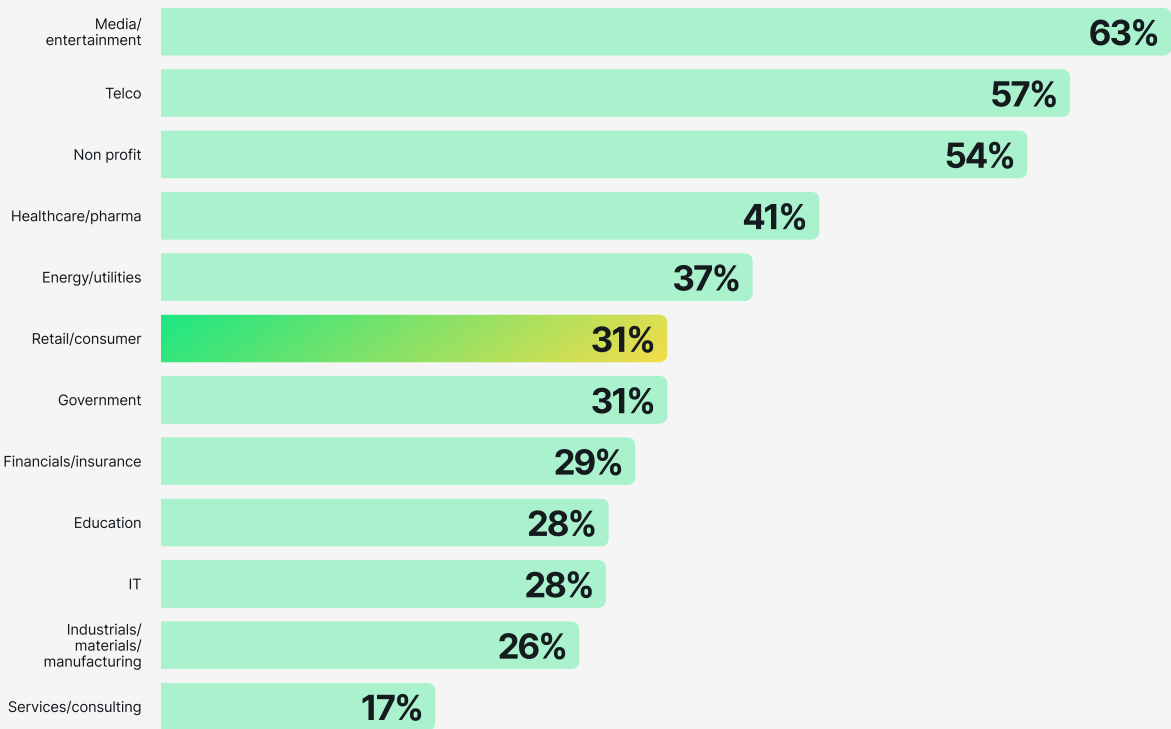


OUTAGE FREQUENCY, DOWNTIME, AND COST

Outages remain **one of the most expensive risks** in retail.

Nearly one-third (31%) of retail organizations report high-business-impact outages at least weekly, only slightly lower than the all-industry average of 35%. Network failures were the most common culprit (39%), followed by software deployment issues (29%) and failures of third-party cloud services (28%).

Outage frequency by industry



THE GOOD NEWS

Retailers are faster than most sectors at detecting and resolving incidents. Median time to detect (MTTD) a high-impact outage in retail is 30 minutes, slightly ahead of the 32-minute overall average. Median time to resolution (MTTR) is 42 minutes, also a bit better than the industry average of 44 minutes. Still, with half of retail organizations saying it takes at least 30 minutes to resolve critical outages—and 23% saying it takes over an hour—even small delays can mean millions lost during peak events.

The median cost of high-business-impact outages in retail is \$1 million per hour, compared to the \$2 million industry median, with over half (50%) of respondents reporting critical business app outages costing at least \$1 million per hour, and one in ten exceeding \$3 million. When outages strike during a peak event like Cyber Monday, the ripple effects on brand perception and loyalty can be even more damaging than the direct revenue loss.

Retailers also incur significant hidden costs. Nearly 60% of respondents said their engineering teams spend at least 20% of their time managing outages, and 14% said engineers spend half their time or more on incident response. This “opportunity cost” diverts engineering talent from innovation, slowing the launch of new features and customer experiences.

Median outage cost (high business impact)



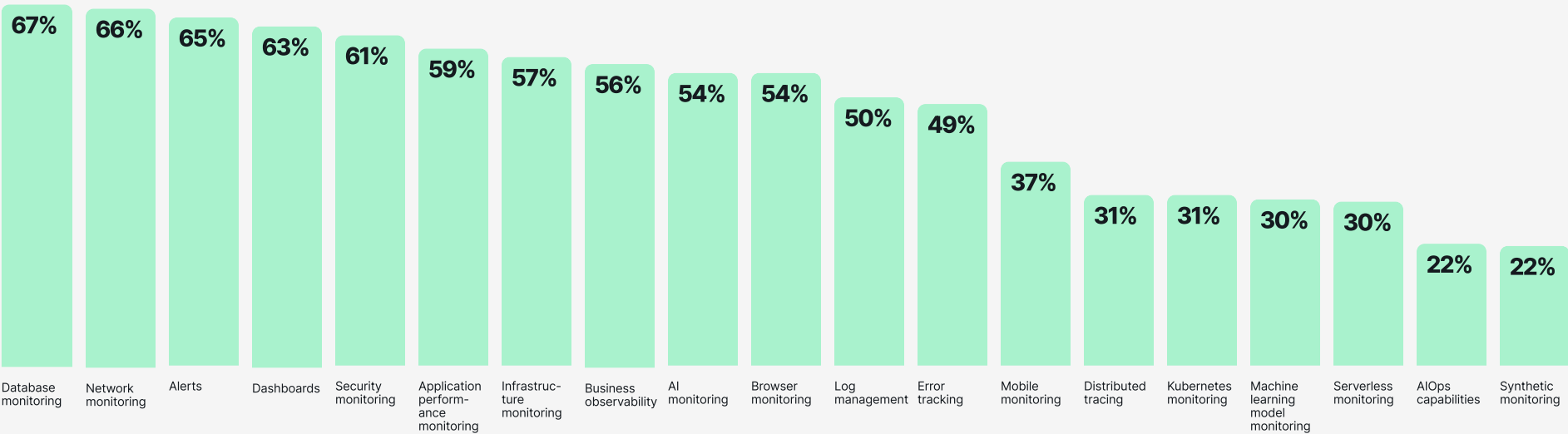
DEPLOYED OBSERVABILITY CAPABILITIES

As consumer spending increasingly flows through digital channels, **retailers face mounting pressure** to ensure consistent uptime, reliability, and superior digital customer experience (DCX).

Success depends on building seamless, omnichannel journeys that keep customers engaged across every touchpoint. To achieve this, retailers are turning to DEM. Focusing on the front end enables businesses to continuously track, measure, and optimize performance and reliability, ensuring smooth online interactions. It combines real user monitoring (RUM)—which includes browser monitoring and mobile monitoring—with synthetic monitoring, delivering the insights needed to create flawless digital experiences.

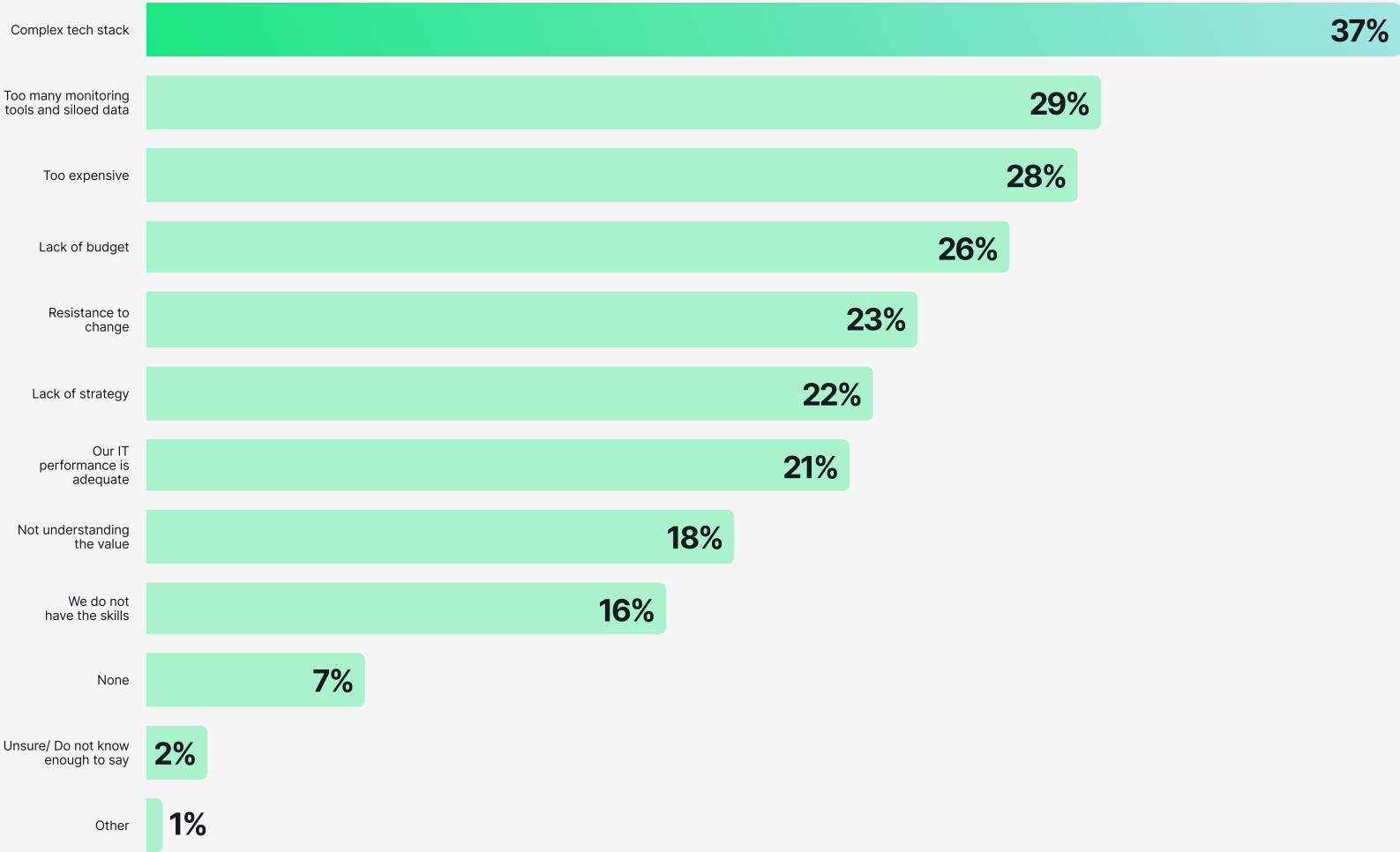
As far as other key capabilities retail/consumer organizations are deploying, two-thirds (67%) had deployed database monitoring, the **most widely deployed capability** for this industry vertical. Network monitoring was the second most widely deployed (66%), followed by alerts (65%) and dashboards (63%). Retail/consumer organizations had more widely deployed several capabilities than average, including alerts, application performance monitoring (APM), browser monitoring, machine learning (ML) model monitoring, and predictive analytics. More than half (55%) of retail/consumer respondents say they are currently monitoring AI now, a capability that has grown in importance over the past year. In 2024, just 35% of retail/consumer organizations had deployed AI monitoring.

Key capabilities deployed



The top challenge preventing retail/consumer organizations from achieving full-stack observability was having a complex tech stack (37%). Too many monitoring tools and siloed data (29%) was the second most-cited challenge.

Challenges preventing full-stack observability



TOOL USAGE AND CONSOLIDATION

Retailers often rely on multiple third-party services, especially specialized tools. However, signs suggest the retail/consumer industry is making progress in reducing this reliance and minimizing complex tool stacks.

34% ↓

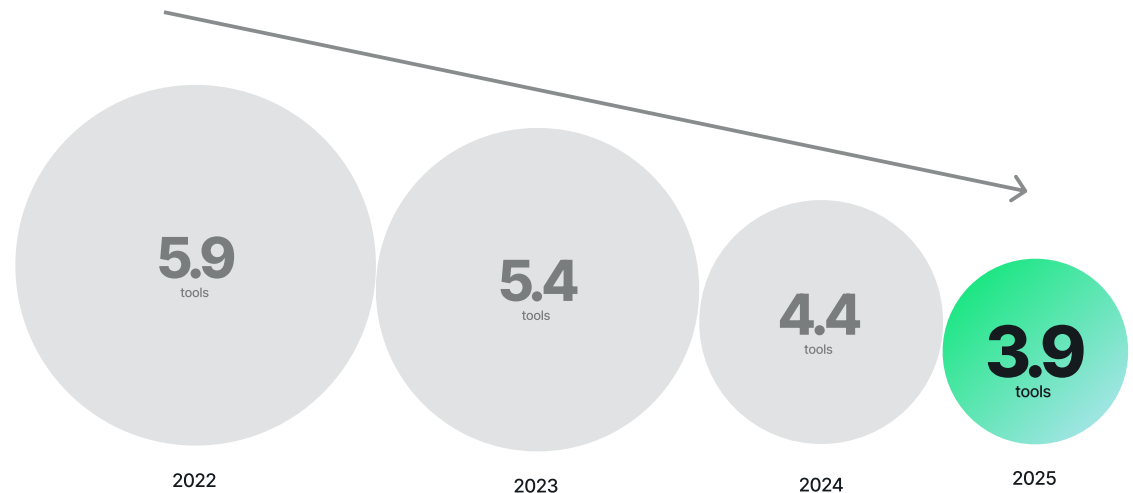
decrease in the average number of observability tools per organization from 2022 to 2025

Retail/consumer organizations were less likely to use five or more tools (37% compared to 41% overall) for the 20 observability capabilities included in this study.

The average number of tools used by retail/consumer organizations is now 3.9, consistently streamlining over the years: it is down from 4.4 tools in 2024, 5.4 tools in 2023, and 5.9 tools in 2022. Its average of 3.9 tools is also slightly lower than the 4.4 average overall. The proportion of retail/consumer respondents using a single tool has jumped considerably as well. Last year, just 3% of retail/consumer respondents used a single tool for observability, but this year 12% of respondents used just one tool.

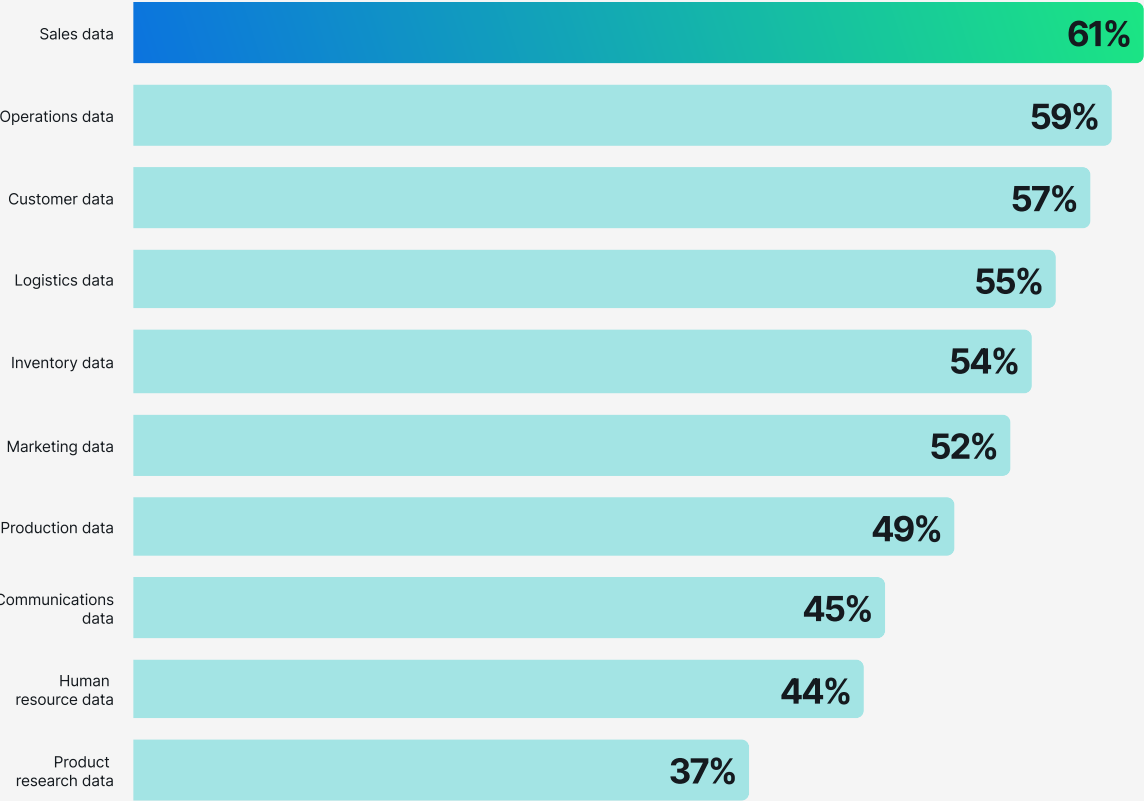
The data shows retail/consumer organizations are on a journey to consolidate observability tooling to increase efficiencies and raise the business value of their observability spend.

Average amount of tools

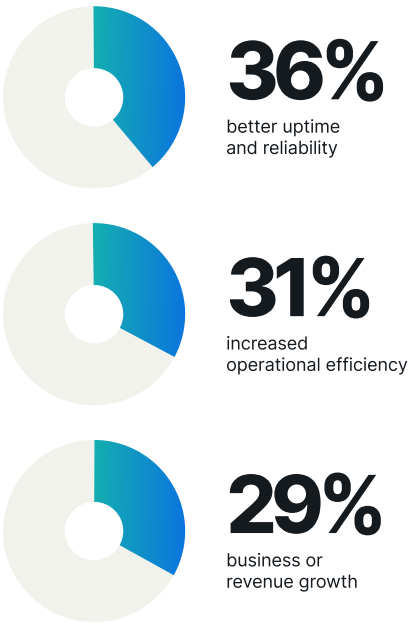


Retail/consumer respondents were **more likely than average to integrate most business-related data types** than overall across all industries. For example, retail/consumer respondents were much more likely to integrate their sales data (61% compared to 45% overall), logistics data (55% compared to 42% overall), and inventory data (54% compared to 42% overall) with their telemetry data.

Types of integrated data



The preference among retail/consumer respondents was for a single, consolidated observability platform (51%). And half (50%) said their organization is likely to consolidate tools in the next year to get the most value out of their observability spend. Affordability (36%), breadth of capabilities and features (31%), and technical support and customer service (29%) are the most important features retail/consumer organizations look for in an observability solution.



BUSINESS VALUE OF OBSERVABILITY

When asked in what ways observability helps improve their life the most, the top two answers for IT decision makers (ITDMs) in retail/consumer organizations were that **it helps achieve business key performance indicators (KPIs)** (41%) and helps drive business strategy (36%). The top answers for practitioners were that it increases productivity so they can find and resolve issues faster (55%) and enables less guesswork when managing complicated and distributed tech stacks (31%). More retail/consumer respondents say the purpose of observability is more for core business goals (39%) than for incident response or insurance (26%).

Regarding the benefits of observability, 44% of retail/consumer respondents said observability increases operational efficiency, and 43% said it improves system uptime and reliability. About a third also noted that observability reduces security risks (35%) and optimizes cost (31%).

Highlights

Increased operational efficiency



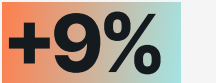
Retail — 44%
All — 40%

Improved system uptime and reliability



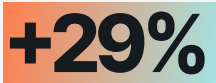
Retail — 43%
All — 41%

Reduced security risks



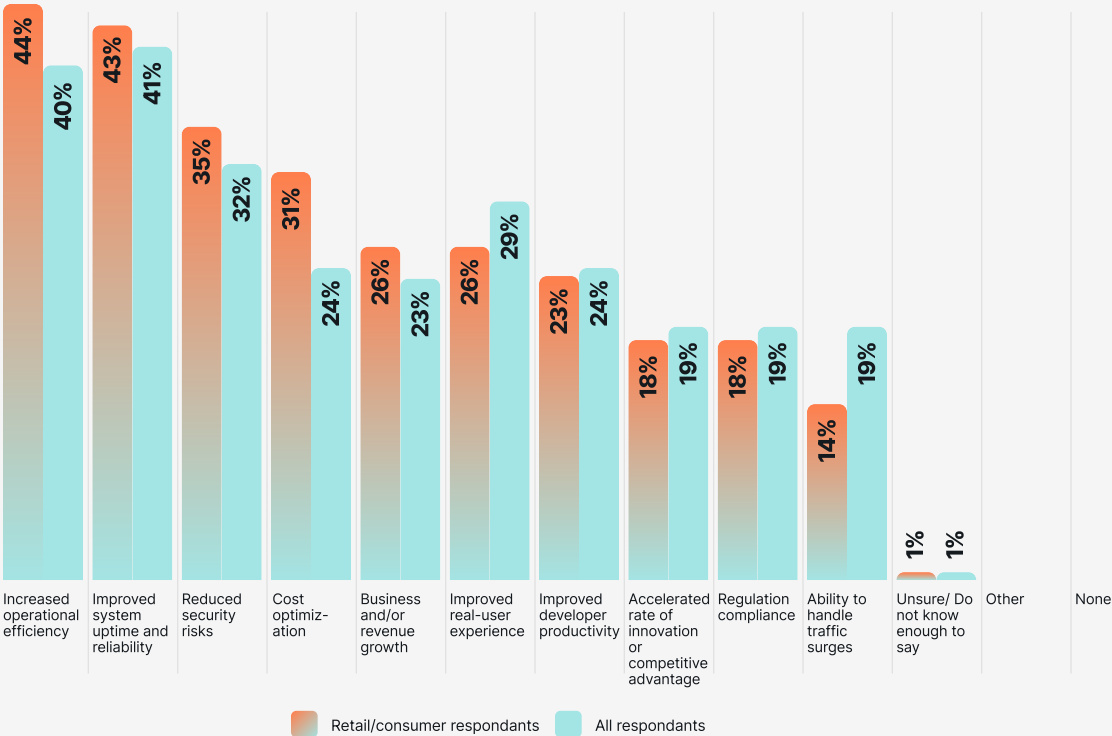
Retail — 35%
All — 32%

Cost optimization



Retail — 31%
All — 24%

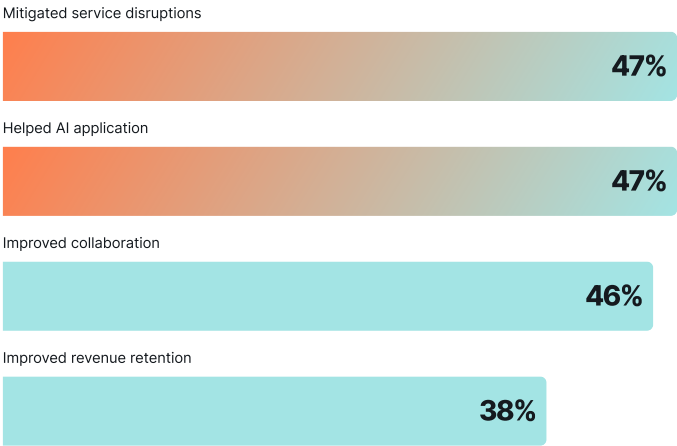
Primary observability benefits



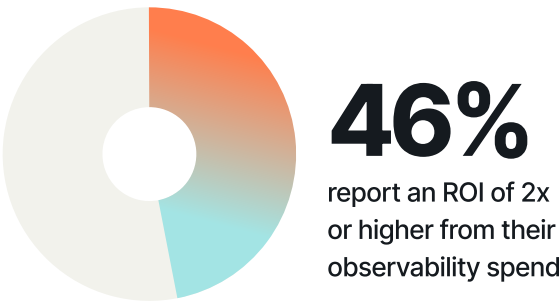
Retail/consumer respondents also cited **clear business outcomes their organizations experience** because they have an observability practice in place. Nearly half said observability mitigates service disruptions and business risk (47%), observability helps the organization prepare for and manage AI application development and deployment (47%), and observability improves collaboration across teams for making decisions related to the software stack (46%). Notably, too, 38% said observability improves revenue retention in their organization by deepening understanding of customer behaviors.

When we asked retail/consumer respondents how the value created by observability compares to its cost, 43% said **value outweighed cost** to some extent, with another 34% indicating value was equivalent to cost. Nearly half (46%) of retail/consumer respondents estimate the return on investment (ROI) realized from its observability spend is at least 2x, including 5% estimating ROI of at least 5x. More than a third (38%) estimate ROI is between 1-2x. Retail/consumer respondents were generally more skeptical of the value of observability and more conservative in estimating its ROI than rates overall.

Business outcomes



Return on investment



FUTURE DEPLOYMENT PLANS

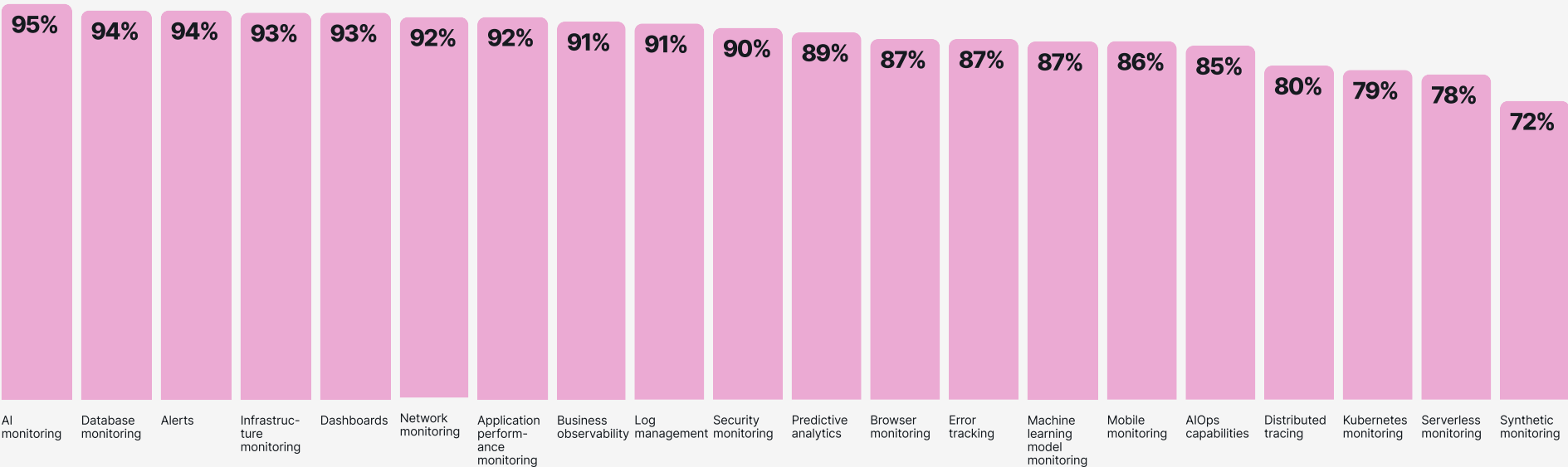
Retail/consumer organizations had ambitious observability deployment plans for the next one to three years.

For example, by mid-2028, **nearly all expected to have deployed AI monitoring** (95%), alerts (94%), database monitoring (94%), infrastructure monitoring (93%), dashboards (93%), network monitoring (92%), application performance monitoring (APM) (92%), log management (91%), business observability (91%), and security monitoring (90%).

DEM is also a focus. In the next one to three years, half (50%) plan to deploy synthetic monitoring, 49% plan to deploy mobile monitoring, and 33% plan to deploy browser monitoring. These findings indicate that by mid-2028, most (87%) will have deployed browser monitoring, 86% mobile monitoring, and 72% synthetic monitoring.

To get the most value out of their observability spend in the next year, more than half (52%) planned to **train staff on how to best use their observability tools** and 50% planned to consolidate tools. About a third also planned to optimize their engineering team size (33%) and reduce spend across the board (32%), as well.

Capability deployments by 2028



CONCLUSION / OBSERVABILITY'S FUTURE

THE RETAIL LANDSCAPE IS EVOLVING

Retail today means navigating constant change: evolving customer expectations, the imperative of digital transformation (especially during Black Friday, Cyber Week, and holiday peaks), economic uncertainty, geopolitical disruptions, and the ongoing challenge of customer retention. It's a complete industry reset happening in real time.

The findings in this report show that observability delivers real, measurable impact for B2C sellers. Retail and consumer businesses see fewer outages, faster resolutions, and reduced observability tools (from 5.9 to 3.9), with more opting for a single platform. This leads to improved efficiency, uptime, reduced security risks, and optimized costs, with 46% reporting a 2x or higher ROI.

The takeaway: **observability is delivering tangible business value for the retail and consumer industry.** With strong interest in expanding capabilities over the next few years, the shift from fragmented point solutions to comprehensive platforms is set to accelerate.

Learn more about [New Relic for retail](#) and request an in-depth, customized demo to find answers to your tough technical questions and get competitive pricing information.

[Request a Demo](#)

The benefits of observability

Observability delivers clear business value for the retail industry.



47%
observe mitigation in
service disruptions and
business risk



44%
note improvement in
operational efficiency



43%
cite improved system
uptime and reliability

ABOUT ETR

ETR is an enterprise technology market research firm that delivers actionable, transparent, and unbiased insights to technology companies, institutional investors, and a trusted community of technology leaders, empowering them to make smarter, faster decisions. ETR's proprietary approach is grounded in their vision to reinvent technology market research so that business leaders can strategically position their organizations to outperform the competition. In fact, no other firm harnesses the same scale and makeup of their vetted community to quickly deliver the unbiased data and analysis that financial and enterprise organizations need to achieve better outcomes.

We use our core surveys to collect data and insights directly from technology leaders. Use this information and our proprietary visualizations and models to mine insights and unearth predictors of enterprise technology performance.

We also offer custom market research surveys that can be commissioned with a targeted group of technology leaders. The target group not only can be based on their organization size, sector, and title, but also on a firm's spending intentions and technology stack. Custom surveys are guided by our expert team to determine the best audience, topics, and questions. ETR ensures companies can access the data and gain the edge.

ABOUT NEW RELIC

The New Relic Intelligent Observability Platform helps businesses eliminate interruptions in digital experiences. New Relic is the only platform to unify and pair telemetry data to provide clarity over the entire digital estate. We move problem solving past proactive to predictive by processing the right data at the right time to maximize value and control costs. That's why businesses around the world—including Adidas Runtastic, American Red Cross, Domino's, GoTo Group, Ryanair, Topgolf, and William Hill—run on New Relic to drive innovation, improve reliability, and deliver exceptional customer experiences to fuel growth.

ABOUT THIS REPORT

All data in this report are derived from a survey, which was in the field from April to May 2025 as part of our work in publishing the 2025 Observability Forecast report. It's the only study of its kind to open-source its raw data. View the *2025 Observability Forecast* survey results.

Retail/consumer respondents comprised 147 of the total respondents surveyed in the *2025 Observability Forecast* study, or 9%.

ETR qualified survey respondents based on relevant expertise. ETR performed a non-probability sampling type called quota sampling to target sample sizes of respondents based on their country of residence and role type in their organizations (in other words, practitioners and IT decision makers). Geographic representation quotas targeted 23 key countries. All dollar amounts in this report are in USD.

DEFINITIONS

View the [definitions](#) used in this report.

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The bottom half of the page features a vibrant, abstract background composed of numerous overlapping, angular shapes in shades of blue, purple, pink, and orange, creating a sense of depth and movement. A dark, rounded rectangular callout box is centered horizontally over this background.

Learn about the New Relic Platform