Microsoft

Optimize Shopper Experiences with a Strong Data Estate

Transform data into innovation in retail and consumer goods organizations

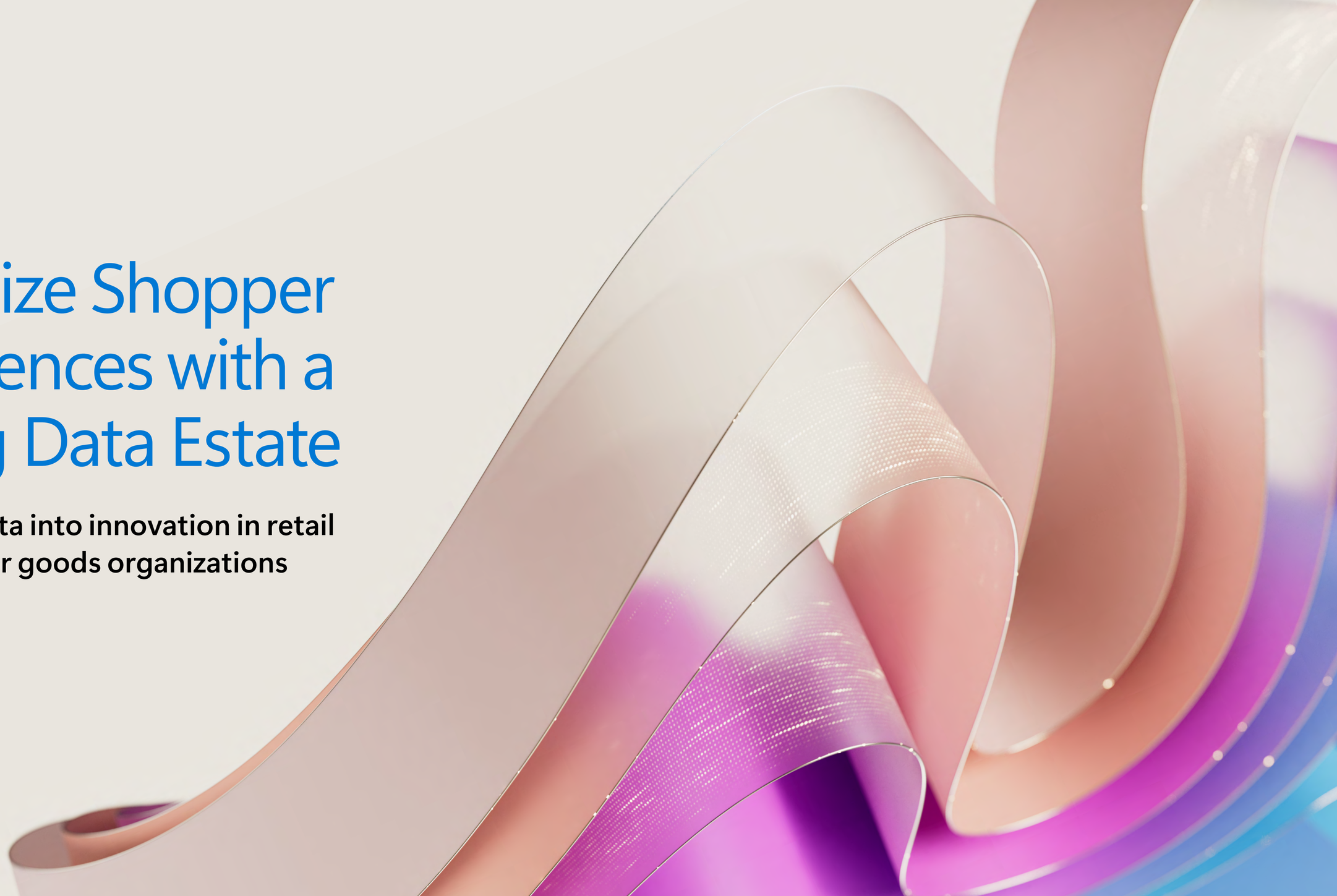


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Introduction

Data as the foundation for AI and innovation

Data is the fuel that powers AI technology—and AI technology drives innovation, helping retail and consumer goods organizations achieve goals like increased revenue growth, cutting-edge product development, strong customer connections and experiences, and optimized cost management.

To unlock the potential of AI-powered technology, retail and consumer goods organizations must address the barriers to reliable, clean, and structured data.

Throughout this e-book, explore how to make sense of your data to leverage AI solutions now and help your business foster greater growth and innovation for years to come.

> **A retailer's actions in the next two to three years could position it for success in the next 20.**
>
> McKinsey & Company [1]

Common data challenges

Centralization

Siloed data across systems becomes inaccessible and difficult to harness for insights.

Speed

Vast amounts of retail and consumer goods data may be hard to use in real time.

Utilization

After analyzing data, businesses can struggle to turn insights into value and opportunity.

Chapter one

Overcome data fragmentation

Most retail and consumer goods organizations collect data from a variety of sources, including point-of-service systems, e-commerce platforms, supply chains, and customer support—to name just a few. Data often comes in a variety of file formats and applications, all of which make it difficult for organizations to consolidate, analyze, and gain actionable insights efficiently.

To harness the full potential of your data—for innovation, predicting shopping or product trends, cost optimization, personalization, and a strong data culture—begin with a thoughtful unification plan.

Use case: A grocery chain reduces waste through unified data

Managing data from multiple store locations and online platforms can lead to understocking or overstocking. By unifying their data, grocery chains can reduce food waste, optimize stock levels, and increase sales by having the right products at the right time.

Key actions for smarter data management

1. Integrate data sources
Map out data sources and determine the importance of each source.

2. Clean up data
Remove duplicates, standardize formats, and address data gaps.

3. Prepare for scalability
Select tools and processes that scale with increases in data volume and complexity.

4. Apply AI for insights
Use AI analytics to derive actionable insights from clean and connected data.

Unify your data into a single source of truth

Consolidate your data to enable a 360-degree view of your organization's operations—as well as your customers' behavior. By first identifying the key sources of data and then ranking their importance, you can begin to connect your data piece by piece into a unified lake, which is a single repository to house data of all kinds and formats.

Solutions such as Microsoft Fabric are designed to help unify your organization's data in phases while working seamlessly within your existing infrastructure and applications.

AI-powered platforms like Fabric can help you:

- Simplify integration across sources, from sales spreadsheets to product design PDFs, into a unified data lake.
- Work from the same dataset across languages and analytics programs.
- Give your sales floor, office, IT, and product teams tools to reduce the cost and effort of data integration and security.
- Gain end-to-end visibility, usage and adoption insights, and industry-leading governance and compliance.

> **Win-win solutions are those where we are helping our team members and our customers at the same time. Our technological investments into operational efficiency have translated into real, tangible benefits for our shoppers.**

Silvio Giorgio

GM of Data & Intelligence, Coles Group

In practice: The value of unified data

colesgroup™

Coles deepens its relationship with shoppers using AI to understand the customer experience and improve efficiency in store

[Leading supermarket retailer] Coles operates over 1,800 sites, each representing a node at the edge of a complex network. It needed a platform that could support the significant AI workloads of large-format supermarkets.

In partnership with Microsoft, Coles is now shifting from initiating AI solutions to scaling them across its operations. A critical element here is democratizing its data, empowering teams across Coles to leverage data, drive intelligent automation, and unlock value in unprecedented ways.

Learn more

Chapter two

Unlock customer insights and analytics

With a robust strategy for data management and governance, retail and consumer goods organizations can clean, organize, and optimize their data. That's when the real, transformative impact of AI-powered applications and advanced analytics programs can come into play—and naturally lead to more growth and innovation.

For example, Microsoft Fabric helps organizations consolidate customer purchase history, browsing patterns, preferences, and other information. This combination of unified data and AI solutions can be used in Microsoft Azure AI Foundry to help reveal deeper insights and create more personalized experiences for shoppers—all in a fraction of the time it used to take.

Use case: A fashion retailer keeps pace with market trends using advanced analytics

In the fashion industry, retailers need to quickly adapt to the rapid pace of evolving market trends. AI can help forecast these trends, predict customer demand, and respond to changes—but only if it has cleaned, unified data to work from.



Bring new experiences to market and access advanced analytics

With unified data, organizations can use AI technology to get a holistic customer view, enhance personalization, make better decisions with real-time insights, and anticipate customer needs with predictive analytics. Solutions like Azure AI Foundry deliver on these capabilities by helping retail and consumer goods organizations:

- Combine in-store purchase data with online browsing history to understand how a customer's behavior changes across channels.
- Deliver tailored shopping experiences and unlock cross-selling opportunities based on analysis of past purchases, browsing habits, or loyalty program activity.
- Track which products are trending and adjust inventory or marketing strategies on the fly.
- Use past purchase cycles to predict when a customer might need a product replenishment and apply proactive outreach strategies to build loyalty and boost repeat purchases.

A unified AI development platform like Azure AI Foundry helps bring generative AI solutions to retail markets and empowers retailers to do so confidently, utilizing built-in content safety tools that proactively mitigate risk.

With Azure, we've decreased the time it takes to analyze data from eight hours to 10 minutes.

Sedat Çelik

Data Science Manager, Boyner

In practice: Using data to accelerate insights

BOYNER™

Boyner triples e-commerce performance using Azure, boosting customer engagement and conversion

Boyner Group, Türkiye's top fashion retailer, has transformed its technology infrastructure by moving to Microsoft Azure. With enhanced data analytics, Boyner can now draw meaningful insights in 10 minutes instead of eight hours, helping to make informed decisions in real time. With more stable, reliable platforms and 3x more performance, Boyner has seen a rise in customer satisfaction, engagement, conversion rate, and revenue.

Learn more

Chapter three

Optimize operational efficiency and lower costs

By tapping into their data, consumer goods organizations can unlock opportunities to more effectively manage internal equipment, operations, products, and personnel.

Integrating data from manufacturing, logistics, and suppliers into a single system provides a complete view of the supply chain and identifies bottlenecks, inefficiencies, and sustainability opportunities.

Further unifying factory and facility data can unlock real-time, intelligent production insights that optimize operations, enable predictive maintenance, and improve worker collaboration.

When you unify your data into a single platform that delivers natural language reports, your organization can better forecast demand, maintain optimal levels of inventory, identify more sustainable solutions, and avoid overproduction and shortages.

Use case: A consumer goods manufacturer accelerates product development

After integrating data into a unified data lake, a consumer goods organization can unlock AI-powered insights to identify inefficiencies in the production cycle, sales, and beyond—ultimately developing products quicker and forecasting consumer demand more accurately, leading to less waste and fewer stock overages.



Improve efficiency throughout the enterprise

Whether you're trying to gain a more holistic view of your retail operation or improve efficiencies in key areas, solutions like Microsoft Fabric can help you:

- Consolidate purchase history, browsing patterns, preferences, and other customer data.
- Simplify billing and reduce costs.
- Identify inefficiencies in the product development process.
- Equip teams to act quickly in response to time-sensitive events, such as new technology or emerging trends.

Partner solution

Azure Intelligent App Factory

Capgemini has built an array of innovative solutions in collaboration with Microsoft, including the Azure Intelligent App Factory. This offering aims to empower consumer goods organizations to scale responsible and sustainable generative AI capabilities for their businesses at speed.

We have seen infrastructure cost reductions up to 40% and performance improvements of around 30%. The automated data ingestion of Fabric has not only reduced the company's manual effort by 25% but also assisted in faster, more accurate data processing and analytics.

Samir Chaudhari

Partner Acceleration Lead, Capgemini

In practice: Centralized data modernizes operations

Capgemini™

Capgemini harnesses Fabric to deliver efficient, scalable, and innovative AI-powered solutions

A United States-based manufacturing company sought the help of Capgemini to modernize their data infrastructure using Fabric. At the time, they were struggling with costly inefficiencies and needed a better way to handle a range of analytics reports from different platforms and data sources.

Capgemini proposed an end-to-end solution that would consolidate the company's disparate data sources into a unified data-as-a-product architecture using Fabric. … This Fabric solution centralized the company's data, reduced total cost of ownership, and provided a scalable, flexible architecture ready for future growth.

Learn more

Chapter four

Enhance customer loyalty through personalization

When deployed across channels, a personalized customer experience can help inspire brand loyalty, increase sales, propel engagement, and lead to more conversions. AI can be a powerful tool to help create those memorable shopping experiences, using predictive analytics to generate discounts and recommendations. Whether you're operating online, in a physical store, or both, Microsoft Dynamics 365 offers a suite of solutions—including Customer Insights—that can help you engage with consumers on a more personal level.





of consumers expect companies to deliver personalized interactions, according to McKinsey.[2]

Use case: A specialty retailer builds deeper, longer-lasting relationships with customers

Data-driven insights provide a specialty retailer greater discernment on customer preferences and purchasing behavior, informing more personalized marketing and helping them save time and reduce costs by smartly managing stock.

Democratize data so everyone in the organization can benefit

Democratizing data means making it usable and accessible for employees to make better decisions, improve customer experiences, and find efficiencies in their work or business operations. This could include, for example, IT teams using predictive customer analytics to improve shopping experiences or cashiers and assistants making inventory decisions at a physical store. Employees can analyze data using plain language, without programming knowledge, using solutions like Microsoft Fabric and Microsoft 365 Copilot. This can equip the whole team to personalize customer experiences at multiple levels.

Personalize customer experiences both online and in person

Deliver personalized experiences across retail channels and connect in-store, digital, and back-office operations on a unified commerce platform. Dynamics 365 Commerce can help you:

- Enhance customer experiences across shopping channels, exceeding expectations with tailored product selections.
- Increase engagement by empowering customers to decide when, how, and where they want to purchase, using their preferred device or channel.
- Centrally manage promotions and discounts across channels using accurate, real-time omnichannel sales and cost data.
- Empower store employees to foster customer relationships with upsell and cross-sell recommendations, insights, loyalty programs, and intelligent actions.

> **We recognized the need for an integrated software platform that could grow with our business, provide solutions specific to retailers, and eliminate the need for multiple standalone systems. Dynamics 365 offers that and more.**

Rob Meshew

CIO, Murdoch's

In practice: How democratized data transforms operations

Murdoch's unifies retail operations and POS with Dynamics 365

Finding the "Goldilocks" solution Murdoch's was looking for was easier said than done. The leadership team concluded that Dynamics 365 offered the flexibility, scalability, security, and innovation the company needed. Other benefits include:

- Vastly improved finance capabilities with centralized data.
- Accurate inventory on demand.
- Flexible supplier promotions and loyalty program rewards.
- Better customer experience with improved cashiering.
- New purchasing options for enhanced customer service.

Learn more

Chapter five

Empower employees with good data habits

Ongoing data hygiene and trustworthy stewardship can help customer-facing retail organizations get the most out of their data. But when frontline employees lack the training, literacy, and tools to collect, store, and manage data safely and effectively, it can lead to missed opportunities and organizational risk. With the right data use and security training, store employees can share insights, collaborate, and access real-time sales, inventory, and customer information through easy-to-use dashboards.

Make the most of your data

In addition to training employees, below are some data management best practices to help employees use and retrieve data quickly and easily.

- Create tags, notes, and other metadata about your data's lineage, profile, quality, business context, and classification.
- Map and catalog data assets so users can readily inspect them.
- Equip power users to create reporting dashboards in Microsoft Power BI and gain actionable insights.

Use case: A big box store streamlines inventory management and reduces logistics costs

A big box store generates stock, product, customer, and other reports to provide insights that help store employees manage inventory and mitigate supply chain disruptions, saving money and helping run the store more efficiently.



Help your employees harness data at scale

Equip your employees with technology that helps them make the most of data. When choosing a solution, make sure it supports users with the following capabilities:

- Exploration of customer data in their own words using natural language with Q&A features.
- Ability to connect disparate data sources in the same environment to establish a single source of truth across the retail enterprise.
- Access to real-time data analytics to reduce operational costs and maximize efficiency.
- Easy-to-use AI features that help users discover customer purchasing patterns, create sales and other reports more quickly, provide answers to customer questions, and unlock deeper insights for improved personalization.
- Ability to easily embed and share reports, improving collaboration across retail and consumer goods functions and departments.

Power BI and Copilot in Microsoft Fabric offer all these features—and more—to help your employees uncover and deploy insights more easily.

> **We were very happy about how easy the tool was to adopt. With little time to study, we were able to quickly adopt the platform. We were reassured by the fact that we had already worked with the entire Microsoft suite and the support we had.**
>
> Bruno Vinícius dos Santos
>
> BI and Analytics Manager, Grupo Casas Bahia

In practice: Driving agility with data-powered insights

CASASBAHIA™

Grupo Casas Bahia increases data processing power and becomes the first Microsoft Fabric success story in Latin America

Grupo Casas Bahia, with a long history in Brazilian retail, needed to increase its base capacity to process an immense amount of data and dashboards. With a base of over 12,000 active users, the team needed immediate access to valuable insights during the most important time of the year, enabling agile decision-making across all sectors of the organization.

An environment for reporting was created in Microsoft Fabric, and in parallel, autoscaling in Power BI Premium was triggered for existing environments, redistributing the workspaces between Microsoft Fabric and Power BI Premium to increase resilience and processing capacity, minimizing the risk and impact of potential incidents. The project proved successful and exceeded the expectations of all the teams involved.

Learn more

Chapter six

Maintain compliance and navigate data privacy regulations

Protecting data can help retail and consumer goods organizations avoid the consequences of hackers breaching infrastructure, consumer or product information leaks, phishing, and other vulnerabilities that violate customer trust.

Securing customer data is key to:

- Complying with regulatory requirements and privacy laws like the General Data Protection Regulation and the California Consumer Privacy Act.
- Maintaining trust, brand loyalty, and a positive relationship with your customer base.
- Avoiding fines, public relations headaches, and other harm that comes from poor data governance.

Partner solution

Orca Security

Orca Security helps organizations protect data throughout their Azure cloud estate by eliminating silos and empowering security managers to act quickly on risks—all without agents, network scanners, organizational friction, or impact on performance.



Use case: A consumer goods manufacturer protects their valuable data before their next stage of growth

With data in a unified lake, a consumer goods manufacturer tracks, analyzes, and protects key information like product formulas and design files, helping them detect and overcome threats before valuable data can be leaked.

Protect your data—and customer relationships

In today's retail and consumer goods landscape, trust isn't just valued—it's required. Customers demand personalized, seamless experiences, yet they also expect their data to be handled with the highest level of privacy and care. Establishing a data governance framework is essential for retail and consumer goods organizations to navigate this complex landscape and meet increasing governmental regulations and industry standards.

Below are some of the ways Microsoft Purview can help you secure your data and avoid legal penalties and reputational harm from a breach.

- Understand and govern your data estate, including consumer and product information, by managing assets across your environment.
- Secure your data throughout its lifecycle across applications, clouds, and devices.
- Improve your compliance posture by identifying data risks and managing regulatory requirements.
- Add an extra layer of compliance and security over your unified data lake by interoperating with Microsoft Fabric.

> **We achieved cost reduction, delivery speed, enhanced data governance, security, and autonomy for the business areas.**
>
> Fernanda Siqueira
>
> IT Executive Manager, Fast Shop

Your trusted data and AI partner

Microsoft is committed to security, privacy, and compliance across everything we do, and our approach to data and AI is no different.

In practice: Data governance and AI boost security

Fast Shop consolidated its data platform on Microsoft Azure and is now ready for the era of AI

[Renowned Brazilian retail chain] Fast Shop required an upgrade of its data platform in order to improve decision-making and create the foundations for the adoption of AI. The project involved data cleaning and optimization, reducing by half—a little over 50%—the number of load and transformation objects, leading to an improvement in governance and security.

They created a self-service culture of access to data, eliminated delays, reduced costs, and increased leadership satisfaction with data while providing more agility in reporting. This entire maturity process provided the ideal environment within the retailer's data platform for the adoption of AI solutions, which are expected to help Fast Shop in strengthening its relationship with customers, leading to an enhanced purchase experience in the chain's channels.

Learn more

Closing

Realize opportunities for data-driven growth

Combining clean, unified data with a robust AI strategy unlocks enormous potential for growth and innovation. **Here's how to do it:**

- **Unify your data.** Build a single source of truth to securely derive insights from data across your organization, from physical and digital storefronts to warehouses and production facilities.
- **Streamline operations with data-derived insights.** Optimize resources, accurately gauge inventory, reduce costs, and uncover efficiencies throughout your operation with end-to-end visibility of your entire data estate.
- **Personalize your relationship with customers.** Harness customer data to build brand loyalty and personalize shopping experiences.
- **Equip your teams with the data they need.** Help your retail and production teams unlock insights with natural language prompts and other easy-to-use AI features.

$660 billion

is the estimated annual revenue potential for the retail and consumer packaged goods industry by increasing productivity with generative AI, according to McKinsey.[3]

Ready to begin?

- Register for a no-cost Microsoft Fabric trial to organize and unify your data and begin unlocking its true potential.
- Explore Microsoft Cloud for Retail for ways to unlock value and connect your customers, your people, and your data.
- Meet consumer demands, build brand loyalty, and drive sustainable growth with Microsoft for consumer goods.

Microsoft

Sources:

[1]McKinsey & Company, "Retail reset: A new playbook for retail leaders," July 10, 2023.

[2]McKinsey & Company, "What is personalization?," May 30, 2023.

[3]McKinsey & Company, *The economic potential of generative AI: The next productivity frontier*, June 14, 2023.

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