



# 10 WAYS RETAIL AND CPG DRIVE BUSINESS VALUE WITH THE DATA CLOUD



RETAIL SUCCESS  
GUIDE

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# THE ONLY CERTAINTY IS CHANGE

The pace of change in the retail, ecommerce, and consumer packaged goods (CPG) industries continues to accelerate. Customer demands around personalization, speed, and cost are increasing. Companies must implement new technologies as consumers embrace omnichannel shopping. The industry is searching for new ways to market to consumers as the media and advertising landscape transforms. And the ongoing impact of the COVID-19 pandemic and its economic fallout is affecting everything from hiring to supply chains.

While nobody knows when things will get back to “normal” in the retail industry, what’s certain is that retailers and suppliers have unlimited opportunities to meet current challenges and future-proof their business. Data is a crucial tool in forging ahead. Companies must use data to understand consumers, satisfy customers, streamline operations, boost efficiency, reduce costs, and discover new streams of revenue. And they must be able to access valuable third-party data, and share internal data with others, securely and compliantly.

Retail pioneers are adopting the cloud to maximize their data. In doing so, they are personalizing customer experiences, optimizing fulfillment and inventory management, and making smarter, data-driven merchandising decisions.



# RETAILERS, IT'S TIME TO BECOME TRULY DATA-DRIVEN

At Snowflake, we're leading the way in helping retailers, ecommerce, and CPG companies mobilize data to enable data-driven decision-making and achieve successful business outcomes. With the Snowflake Data Cloud, organizations can build stellar customer experiences and deliver targeted marketing campaigns. They can drive performance and efficiency across the value chain as well as regionally and in stores. They can securely share and exchange data to strengthen partnerships and obtain customer insights. And they can increase

revenue by unlocking value from previously siloed data with Snowflake's secure data sharing capabilities and Snowflake Data Marketplace. Snowflake enables hundreds of retailers and CPG manufacturers to achieve these benefits and more to get ahead of the competition.

This ebook explores some of the innovative and exciting ways our retail, ecommerce, and CPG customers are already unlocking the value of data to forge ahead in an era of uncertainty.



# #1 IMPROVE PERSONALIZED MARKETING

## THE CHALLENGE

Ecommerce sales are soaring, with more and more brands developing strong digital channels to serve customers.<sup>1</sup> With the increase in competition on digital channels, marketers need to develop new strategies to attract and target consumers. According to McKinsey, retail companies should bet on personalization as a way to drive top-line growth: “Personalization has helped several [retail] industry players achieve 20% to 30% increases in customer lifetime value across high-priority customer segments.”<sup>2</sup> Personalized marketing involves interacting with consumers and customers, taking into account their interests, preferences, and previous shopping experiences. And it all starts with data.

## SNOWFLAKE’S SOLUTION

Snowflake’s Data Cloud helps companies easily leverage internal as well as external data to power marketing analytics. External data from Snowflake Data Marketplace includes real-time consumer insights from third-party sources. Retailers can use insights from these analytics to create and deliver targeted, personalized marketing content to consumers, turning them into customers.

## CUSTOMER SPOTLIGHT:



**HEADQUARTERS** Plano, Texas  
**INDUSTRY** Restaurants

During the 2020 Super Bowl, Pizza Hut’s Enterprise Data Services team created a unified, near real-time view of business analytics, which wasn’t feasible before Snowflake. Data pipelines captured data across systems and fed a dashboard, enabling executives to monitor key metrics and adjust resource allocations. Data scientists use Python, R, and Spark to query data, apply machine learning algorithms, then write data back to Snowflake. These predictive analytics ensure that customers receive the right messages and offers. In addition, Snowflake Data Marketplace provides access to weather and geolocation data sources for Pizza Hut. Pizza Hut’s Enterprise Data Services team can correlate weather patterns to customer purchases and use that data to optimize targeted marketing campaigns.

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# #2 DELIVER SEAMLESS OMNICHANNEL EXPERIENCES

## THE CHALLENGE

Leading brands are creating a seamless omnichannel experience for customers. This enables a faster and easier shopping experience that can be started on one channel and easily continued on another—whether it’s in-store, online, or through a mobile app. To do it right, companies must harness the wealth of data available. According to McKinsey: “Today, companies can regularly, lawfully, and seamlessly collect smartphone and interaction data from across their customer, financial, and operations systems, yielding deep insights about their customers. Those with an eye toward the future are boosting their data and analytics capabilities and harnessing predictive insights to connect more closely with their customers, anticipate behaviors, and identify CX issues and opportunities in real time.”<sup>3</sup>

## SNOWFLAKE’S SOLUTION

To build seamless omnichannel experiences, retailers need to enhance their Customer 360, the practice of obtaining a holistic, timely view of customers from multiple data sources—from online transactions, social media, forums, and physical touches to third-party interactions, customer support, and service. Snowflake’s Data Cloud collects and unifies Customer 360 data points—structured, semi-structured, and unstructured<sup>4</sup>—into an easy-to-query SQL data warehouse that integrates with leading marketing, customer experience, business intelligence, machine learning, and data management tools. With insights gleaned from this holistic view, companies can create omnichannel customer experiences that result in increased loyalty and repeat purchases.

## CUSTOMER SPOTLIGHT:

# petco

**HEADQUARTERS** San Diego, California  
**INDUSTRY** Retail

Realizing the need for a modern data environment, Petco turned to Snowflake. Snowflake’s multi-cluster shared data architecture scales instantly to eliminate resource contention. Flexible capacity scaling provides a convenient solution to Petco’s cyclical reporting challenges. Modernizing Petco’s data environment with Snowflake had an immediate impact on operations. Business teams use data from Snowflake to understand and influence customer behavior across Petco’s stores, mobile app, and website. Data visualizations, enabled by Snowflake, provide 360-degree customer views that guide decision-making about personalized service offers, promotional campaigns, and other revenue-generating programs. The near-instant elasticity of Snowflake’s compute aligns with Petco’s cyclical reporting needs without incurring the cost of unused compute.

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# #3 INCREASE CUSTOMER SATISFACTION AND RETENTION

## THE CHALLENGE

According to a recent McKinsey report, 71% of consumers expect companies to deliver personalized interactions and 76% get frustrated when this doesn't happen.<sup>5</sup> To meet their expectations, retail industry leaders are employing Customer 360 to get a comprehensive view of customers. Armed with data from multiple sources and analytics that provide deep insights about each customer's journey, they can do a variety of things. These include creating personalized experiences that meet customers' unique and individual requirements, performing predictive analytics that provide early alerts to potential issues, optimizing support to create a better help experience, and personalizing offers based on customers' characteristics and preferences. But data silos are the scourge of Customer 360. Data that lies in different systems is difficult to mine and analyze for business insights.

## SNOWFLAKE'S SOLUTION

To help companies combat fragmented data and employ Customer 360, the Snowflake Data Cloud centralizes data from various sources and in various formats—structured, semi-structured and unstructured—in one secure repository. Snowflake Data Marketplace enhances the data with data from third-party sources. From there, companies can use pre-integrated data analytics, business intelligence, machine learning, and data management tools for deeper insights. They can then use those insights to make real-time, personalized data-driven decisions to improve customer experiences and create happy, repeat customers.

## CUSTOMER SPOTLIGHT:



**HEADQUARTERS** San Francisco, California  
**INDUSTRY** Mobile delivery

To eliminate data silos and better serve the needs of customers, DoorDash turned to Snowflake's Data Cloud to employ Customer 360. Snowflake's multi-cluster shared data architecture scaled to handle DoorDash's data, users, and workloads with speeds twice as fast as before. Snowflake's fully managed infrastructure with near-infinite scalability kept the BI team focused on data analytics and modeling. Ingesting DoorDash's consumer, merchant, and Dasher data into Snowflake provides market managers across the globe with the latest supply and demand insights by 7 a.m. daily. Architecting DoorDash's merchant portal on Snowflake provides merchants with data-driven reports for managing orders, inventory, and staffing.

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# #4 UNDERSTAND CONSUMER TRENDS AND BEHAVIORS

## THE CHALLENGE

The ability to mobilize and use external data is the differentiator between good and great companies. Integrating data such as demographics, weather, and local market data with internal customer data can improve decision-making about marketing campaigns, supply chain management, and in-store operations. According to Deloitte: “Analyzing external data can help companies see risks and opportunities that they would miss with inputs limited to data generated from internal operations, customers, and first-tier suppliers. Analyzing external data can illuminate how factors such as shifting consumer behaviors, competitor initiatives, or geopolitical events can affect a business.”<sup>6</sup> But traditional methods of attaining third-party data (for example, ELT processes) are difficult, costly, and time-consuming.

## SNOWFLAKE’S SOLUTION

Snowflake Data Marketplace provides easy access to hundreds of live and ready-to-query data sets from third-party data providers and data service providers without the risk and hassle of copying and moving stale data. Instead, companies can securely access live, governed, shared data sets and receive automatic updates to that data in real time. With third-party demographic, purchase intent, and product/brand affinity data, retailers can promote the right products and services to their customers. They can also develop rich, contextual insights without compromising consumer privacy. With a holistic view of shoppers, retailers can anticipate consumer behavior to make more-informed merchandising, pricing, marketing, and supply chain decisions. Snowflake enables the powerful merging of internal and external data to reach data-driven retail insights.

## CUSTOMER SPOTLIGHT:

# KraftHeinz

**HEADQUARTERS** Chicago, Illinois  
**INDUSTRY** Food Processing

Since moving to the Snowflake Data Cloud, Kraft-Heinz has been able to easily access external data sets that are hosted on Snowflake’s platform. For example, Kraft Heinz has been using COVID-19 data from Johns Hopkins University, allowing it to see instantly which areas of its business are most impacted. It uses this data to build predictive models that allow it to get products into the supply chain exactly where (and when) they’re needed, ensuring its partners and customers can keep supermarket shelves stocked. New data sets must typically go through extensive preparation and testing before they are ready to use, which impedes agility and experimentation. With Snowflake Data Marketplace, third-party data sets are already available on the platform and can be turned on in a few minutes. They are then available for use alongside Kraft Heinz’s own customer relationship management (CRM), inventory, and other data, making it easy for data teams to experiment and build new applications. That means the company can focus its resources on innovation instead of the mechanics of data plumbing.

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# #5 MAXIMIZE ROI ON MARKETING SPEND

## THE CHALLENGE

Marketing organizations allocate budgets based on success, but how do they determine what is successful? How can marketers determine which tactics contribute to sales or conversions and the size of the contribution? The answer is marketing attribution, the systematic practice of evaluating how consumers interact with each touchpoint as they move from initial encounter to final purchase. By determining the impact that various channels, messages, and offers have on customers' decisions, marketers can optimize future campaigns and maximize ROI on marketing spend.

## SNOWFLAKE'S SOLUTION

Snowflake helps marketers harness machine learning to build custom multi-touch attribution models that help optimize their marketing spend. The Snowflake Data Cloud eliminates data silos and consolidates customer data sets in a single platform. It activates those data sets for advanced analytics, and makes them easily shareable so that marketing, data science, and engineering teams can work in lockstep to design and build models and leverage the results for campaign optimization. Marketers will gain insights into which engagements are driving the greatest impact across every channel in real time, and take action faster to maximize investments.

## CUSTOMER SPOTLIGHT:



**HEADQUARTERS** Harrison, New York  
**INDUSTRY** Advertising

One of PepsiCo's data science projects is the ROI Engine, a machine learning modeling-based tool that evaluates and measures the effectiveness of PepsiCo's marketing and advertising campaigns. The ROI Engine helps PepsiCo marketers answer questions about the performance of different media campaigns as well as make recommendations on where to place marketing spend. As part of the ROI Engine, the team collects information from multiple data sources and stores this data in the Data Cloud. Data scientists then use this data set to generate actionable insights. Thanks to Snowflake Secure Data Sharing, teams can quickly share a database or a table with other teams in the organization. Teams don't need to worry about building the data pipelines; they can always get access to the latest, up-to-date data at any given time. All of the data sets are together in one place. The ROI Engine has already allowed PepsiCo to increase its digital penetration in certain brands by double digits.

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# #6 DRIVE REVENUE THROUGH DATA MONETIZATION

## THE CHALLENGE

Data monetization: It's the holy grail of revenue growth today. The global market for data monetization, which was estimated to be at \$1.6 billion in 2020, is projected to reach \$4.1 billion by 2026.<sup>7</sup> Retailers have troves of data in their customer databases and loyalty programs. This data, when shared securely and in accordance with data and consumer privacy laws, can be valuable to a number of businesses. Suppliers can improve inventory planning and pricing. Advertisers can better target their marketing content. Financing and support organizations can offer adjacent customer services such as financing and warranties. The challenge lies in how to isolate specific data sets and share them easily and securely.

## SNOWFLAKE'S SOLUTION

Snowflake Data Marketplace makes it easy for retailers to share and monetize their data securely.<sup>8</sup> They can choose the data sets they want to share from their Data Cloud suppliers and instantly publish them to Snowflake Data Marketplace as live, governed, read-only data sets. This eliminates the need to build and maintain APIs or data pipelines, and reduces the cost and effort associated with ETL processes for data transformation and delivery. It also gives retailers control of their own data as they share and monetize what they want, when they want.

## CUSTOMER SPOTLIGHT:

# Sainsbury's

**HEADQUARTERS** London, United Kingdom  
**INDUSTRY** Retail

Sainsbury's chose the Snowflake Data Cloud to create a single source of truth for business-critical data across all of its brands. Sainsbury's implemented Data Vault, a method and approach to modeling an enterprise data warehouse that is agile, flexible, and scalable. With Snowflake, Sainsbury's was able to launch a product-matching service that compares its products with competitors' products. The service is a popular feature on its websites. The company built business models to calculate the business benefits provided by the data science engine on Snowflake. Before Snowflake, handling GDPR requests and generating reports entailed complex processes on multiple systems, including IBM MDM, Oracle, and PostgreSQL. Snowflake helped eliminate layers of duplication and confusion. Instead of seven or eight different systems, engineers now just have to look at one.

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# #7 MODERNIZE OPERATIONS AND REPORTING

## THE CHALLENGE

A modern data infrastructure is table stakes for retailers looking to stay competitive today. Aging on-premises infrastructures are unable to meet demands for agility and innovation and are time- and resource-consuming. Cloud-based infrastructures let you store and share unlimited amounts of data at low cost, unrestricted by data silos or formats. They also enable users to run analytics or machine learning using a variety of tools and can process greater volumes of data in shorter amounts of time, enabling the kind of real-time data-driven decision-making that's essential for business today.

## SNOWFLAKE'S SOLUTION

Snowflake's Data Cloud provides a modern data infrastructure that lets retailers streamline inefficiency for core functions, such as inventory management while gaining real-time visibility into business performance and improving forecasting. The Data Cloud delivers granular and timely insights to predict demand and optimize inventory, supply chains, and fulfillment. Retailers can also easily share data without copying or moving it, increasing privacy and security controls.

## CUSTOMER SPOTLIGHT:



**HEADQUARTERS** Rosemont, IL  
**INDUSTRY** Food and beverage

Snowflake's Data Cloud scaled to become US Foods' single analytics repository for transaction data. Predictive analytics from DataRobot and Snowflake helps US Foods build forecasts and reduce the customer churn rate. Before removing products from its catalog, US Foods analyzes millions of historical records to estimate revenue impact, identify customers who are likely to leave, and develop individualized retention efforts. The combination of DataRobot and Snowflake modernizes operations and reports for US Foods, delivering instant, actionable insights with less hands-on manipulation and human error.

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# #8 OPTIMIZE PRICING, MERCHANDISING, AND ASSORTMENT PLANNING STRATEGIES

## THE CHALLENGE

According to McKinsey, to succeed in today's volatile retail market, "retailers that have natural depth and breadth of assortment on their shelves...and in their warehouses are well positioned in the case of unforeseen supply shocks." To make these decisions, retail merchandisers must influence cross-functional teams to optimize category as well as dynamic placement, pricing, and promotion decisions. However, without access to granular product sales information and customer insights, merchandisers are forced to influence teams and make decisions based on instincts. As a result, teams are left paralyzed with indecision and second-guessing, and can end up making suboptimal decisions, impacting sales.

## SNOWFLAKE'S SOLUTION

With the Snowflake Data Cloud, merchandise leaders can access near real-time product sales insights. They can enrich this data with consumer demographic, foot traffic, category, and other data insights used in predicting consumer needs and buying habits. As a result, they can drive sales growth through timely, data-driven decisions around which products to prioritize, how to price and promote, and how to lay out stores and ecommerce sites.

## CUSTOMER SPOTLIGHT:

# URBAN OUTFITTERS

**HEADQUARTERS** Philadelphia, Pennsylvania  
**INDUSTRY** Retail

Snowflake's Data Cloud enabled Urban Outfitters (UO) to build a single source of truth that created a 360-degree view of the enterprise and empowered business leaders to make data-driven decisions. Store managers can access information to make placement decisions early in the day. Merchants and buyers can add equivalent TY (this year) versus LLY (last to last year) reporting with no delays in delivery, while changing many calculations. The volume of pricing history UO can keep in the Data Cloud allows extensive analysis of historical trends to determine the best current path for pricing and promotions. Data from the distribution centers is centralized, updated in real time, and easily accessible, enabling fast and timely supply chain management decisions. If there are delays upstream, UO can increase virtual warehouse size to keep service levels.

[Learn More](#)



# #9 OPTIMIZE FULFILLMENT, DELIVERY, AND CUSTOMER EXPERIENCE

## THE CHALLENGE

As the ongoing trend from brick-and-mortar to omnichannel sales continues, customers expect products to be available where and when they need them. Retailers need to fulfill a variety of new models including click and collect and same-day delivery. To do so, they need granular and timely insights to predict demand and optimize inventory, supply chains, and fulfillment. But with legacy technology that causes product sales information to be spread across silos, operations leaders are stuck using stale data. This can lead to failures in timely fulfillment and delivery and a subpar customer experience.

## SNOWFLAKE'S SOLUTION

The Data Cloud centralizes data in one location, enabling operations leaders to access all of their SKU-level inventory and sales data in near real time. They can enrich this data with regional insights about consumer demographics and other factors that may influence demand. As a result, they can drive fulfillment innovations such as operationalizing click and collect and reducing delivery windows from weeks to hours. They can identify which stores have more product than they need and which stores have the potential for out-of-stocks. And they can fulfill deliveries on time, creating happy, repeat customers.

## CUSTOMER SPOTLIGHT:



**HEADQUARTERS** Seattle, Washington  
**INDUSTRY** Restaurants

In March 2020, the pandemic changed everything for MOD Pizza. Overnight, the business had to cut costs and radically transform from an in-person destination to digital-first. Company leaders had just decided to make major investments in their data stack. Snowflake and Tableau enabled them to change store layouts and processes so they could offer digital ordering, curbside pickup, and mobile delivery. They changed their menu to promote family packs across digital channels—a big shift from their prior strategy of maximizing individual orders. They were also able to support employees through rapid sharing of COVID-19 exposure information and self-serve access to next steps.

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# #10 DRIVE SUPPLY CHAIN EFFICIENCY AND COLLABORATION WITH CHANNEL PARTNERS

## THE CHALLENGE

With constant fluctuations in consumer demand and supply, operations leaders need granular and timely insights to predict demand and optimize inventory. However, with product sales information spread across silos and channel partner systems, operations leads are stuck using stale data and end up with excess out-of-stocks and inefficiencies across warehouse and store inventory. Retailers need a way to measure and respond to shifts in consumer demand by gathering real-time insights from every corner of their supply network.

## SNOWFLAKE'S SOLUTION

With Snowflake's Data Cloud, operations leaders can access their SKU-level inventory and sales data in near real time. They can enrich this data with regional insights about consumer demographics and other factors that may influence demand. As a result, they can make smarter inventory allocation decisions and drive fulfillment innovation, such as operationalizing click and collect or reducing delivery windows from weeks to days—or even the same day. With Snowflake Data Marketplace, they can also conduct robust inventory forecasting, which requires integrating second- and third-party data from channel partners and other systems. They can also ingest critical real-time information such as weather, social media sentiments, inflation, and labor workforce trends to understand macro cross-industry trends. This is essential in predicting supply chain disruption and driving supply chain efficiency.

## CUSTOMER SPOTLIGHT:



**HEADQUARTERS** San Francisco, California  
**INDUSTRY** Retail

Instacart partnered with Snowflake through the Powered by Snowflake program to build an application for its retail partners to enable them to see more comprehensive, timely purchasing trends and insights on the Instacart marketplace. With tens of thousands of unique SKUs at every grocery store—and inventory and other attributes changing minute-by-minute—reporting real-time trends allows Instacart to drive even more value for its retail partners. The Powered by Snowflake program's workshops focused on design optimization and access controls enabled Instacart to significantly accelerate the development timeline for Instacart's new retailer insights tools. Being able to more seamlessly process product and availability data and share that back with retail partners in real time enables Instacart to help retailers gain an even clearer picture of what's happening on their store shelves and ultimately drive more growth for their businesses.

[Learn More](#)



# UNLOCK THE POWER OF RETAIL DATA

Burdened with siloed data and fragmented insights, retailers, ecommerce, and CPG companies are struggling to build end-to-end agility and make data-driven decisions across their businesses. Snowflake delivers a centralized, integrated data repository that powers business decisions by bringing together data from point-of-sale systems, marketing analytics applications, loyalty programs, supply chains, distribution, and logistics, merchandising, inventory management,

and fulfillment. Retailers with fresher, more granular data and a powerful, scalable engine are able to power advanced analytics and improve operational efficiency, maximize profitability, and minimize costs while delivering greater value through seamless, omnichannel customer experiences. For more information on how you can use Snowflake to unlock the power of retail data, visit [Snowflake for Retail and CPG](#).





## ABOUT SNOWFLAKE

Snowflake delivers the Data Cloud—a global network where thousands of organizations mobilize data with near-unlimited scale, concurrency, and performance. Inside the Data Cloud, organizations unite their siloed data, easily discover and securely share governed data, and execute diverse analytic workloads. Wherever data or users live, Snowflake delivers a single and seamless experience across multiple public clouds. Join Snowflake customers, partners, and data providers already taking their businesses to new frontiers in the Data Cloud.

[snowflake.com](https://www.snowflake.com)



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### CITATIONS

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<sup>2</sup> [mck.co/3CXyBpy](https://mck.co/3CXyBpy)

<sup>3</sup> [mck.co/3EK6Ykr](https://mck.co/3EK6Ykr)

<sup>4</sup> Unstructured data support is currently in public preview.

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