



Al and Unified Data: Empowering Next-Generation Product and Shopper Intelligence

CUSTOM REPORT

Executive Summary

Businesses are aggressively seeking next-generation technology that consolidates customer experience and supply chain solutions into a cohesive, AI (artificial intelligence)-powered platform. The ultimate goal is to drive further business value through the automation and optimization of workflows, from supply chain to the customer experience. Such innovations are important to companies that seek to continuously grow and maintain a competitive advantage in increasingly complex and saturated consumer industries.

Market Scale and Opportunity

- Coresight Research estimates that the combined market for GenAI (generative AI) hardware and applications totals \$79.8 billion in 2024 and will grow at a compound annual growth rate (CAGR) of 31.1% to \$235.5 billion in 2028. The AI applications segment, including GenAI models, is set to grow 4.5X in that timeframe.
- Consumer industries should adopt Al-driven technologies to streamline processes, reduce operational costs and enhance the customer experience. By fully integrating Al into business functions, companies can unlock significant efficiencies and drive more personalized, data-driven decision-making at scale.

Coresight Research Analysis

1. Technology Challenges for Consumer Industries in the Current Landscape

- Data are often managed separately for marketing, demand forecasting, merchandising and pricing, leading to an overall disjointed and poor understanding of data. Only 41% of US-based retailers have price planning "fully integrated" with complementary business functions, on average, according to Coresight Research survey data.
- Many data management solutions lack the analytical capabilities to derive actionable insights from large data sets, limiting their effectiveness in data-driven business decisions and leading retail companies to miss out on opportunities to optimize inventory, enhance customer experiences and streamline operations.
- Businesses often experience significant delays in integrating PIM/PXM (product information/experience management) systems with their existing IT infrastructure. A lack of real-time product knowledge may lead to misinformed decision-making and slow market adaptability. Coresight Research survey data reveal that around half of US-based retailers cannot execute at least 10% of their promotional campaigns properly, and retailers are mispricing 10% of their products on average, in any given selling period.
- The absence of structured, high-quality data remains a critical barrier to effective AI and GenAI deployment in retail. Other barriers to rapid innovation include a lack of scalability in technology solutions and a lack of data.
- Overcoming technological challenges is important for companies that want to increase operational performance, create better customer experiences and maintain a competitive edge. Solid internal technology structures that include data analytics platforms and AI-powered inventory management systems enable companies to achieve growth, innovate and respond quickly to market changes and customers' needs.

2. Characteristics of Modern Platforms

- Modern technology platforms must support a wide range of Al and machine learning (ML) models and harness predictive analytics to generate deep customer insights. We expect investment in, and strategic implementation of, Al applications to continue to expand as more companies realize the potential of the technology to drive business benefits such as new revenue and margin growth, improved operational efficiency and enhanced customer experiences.
- To provide advanced data management and capitalize on the power of AI, modern product-management platforms must be enterprise-grade, secure, cloud-ready, low-code/no-code/extensible and able to manage big data.

3. Operational Features of Modern Platforms

- Utilizing a single, unified platform with integrated applications (such as Digital Wave Technology's ONE[™] Platform) streamlines operations and data management across various functions, ensuring a seamless flow of information and eliminating data silos.
- In terms of flowing goods through the supply chain, next-generation Al datamanagement platforms offer a view of all master data in a central location and centralized planning tools that help the business match inventory with market demand, improving inventory turnover and minimizing overstocking or stockouts. In addition, integrated pricing systems help optimize price setting and promotional planning through advanced analytics.
- A centralized platform fosters collaboration across different business functions, enhancing decision-making, operational efficiency and the ability to respond quickly to market changes with real-time visibility.
- Adopting a shared data model accelerates speed-to-market for new products and services by integrating workflows and ensuring data consistency across the organization. Such platforms enable rapid application development, are selfconfigurable and scalable, and feature advanced tools to help organizations derive actionable insights from data.

4. Business Benefits of Modern Platforms for Retailers

• We identify four major, interconnected business benefits of using next-generation data-management platforms that enable companies to maintain a competitive edge in the rapidly evolving commerce landscape: enhanced customer satisfaction, improved product availability, greater efficiency and enhanced profitability.

What We Think

We see huge transformative potential of AI in its integration within a comprehensive consumer insights, product information and digital supply chain strategy. By consolidating and harmonizing product data across point-of-purchase, merchandising, marketing, pricing and more, brands can develop more cohesive and robust strategies to achieve greater agility and responsiveness in a rapidly evolving market landscape, leading to enhanced customer experiences and increased sales. Companies should invest in advanced product and shopper intelligence to unlock new efficiencies, deepen customer relationships, and position themselves ahead of competitors in today's digital-first environment.

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Introduction

Across all consumer industries, companies face complexity in managing multiple business processes and maintaining comprehensive product information across the omnichannel product lifecycle, from the creation of an item to inventory planning and pricing. For purposes of this report, we define consumer industries as an industry that produces goods and services for direct consumption by consumers, with a focus on retail, healthcare and consumer brands.

This report builds a case for next-generation technology architecture as crucial to enhancing data quality and its usage in fundamental business processes, by consolidating customer experience and supply chain solutions into a cohesive, AI (artificial intelligence)-powered platform. The integration of product information management (PIM), product experience management (PXM), master data management (MDM) and AI with rapid application development, centralizes consumer insights, product information, media, sales and inventory metrics, placing them at the core of processes in a common data environment.

The ability to unify all data while deploying AI and GenAI (generative AI) allows organizations to significantly reduce data management efforts and automate analytical tasks; the ultimate goal is to drive further business value through the automation and optimization of workflows, from supply chain to the customer experience. Such innovations are important to companies that seek to continuously grow and maintain a competitive advantage in the increasingly complex and saturated market.

This report is produced and made available to non-subscribers of Coresight Research in partnership with Digital Wave Technology, an AI solutions provider for brands and retailers, focusing on data management, product experience and marketing.

Market Scale and Opportunity

Coresight Research estimates that the combined market for GenAl hardware and applications totals \$79.8 billion in 2024 and will grow quickly over the next few years, to \$235.5 billion in 2028. The Al applications segment, including GenAl models, is set to grow 4.5X in that timeframe—outpacing hardware, with estimated compound annual growth rates (CAGRs) for 2024–2028 of 46.3% and 24.9%, respectively.

Figure 1. Estimated Global GenAl Hardware and Applications Market Size (Left Axis; USD Bil.) and YoY Growth (Right Axis; %)

CAGR, 2024–2028E: **31.1%**



With the adoption of AI technologies set to explode, consumer industries must embrace AI-driven solutions and robust MDM practices to remain innovative, keep up with the pace of change and capitalize on the potential transformative benefits of AI technologies.

In its earnings call for the second quarter of fiscal 2025, Walmart CEO Doug McMillon highlighted recent success with GenAl. saving that the company is finding "tangible ways" to leverage GenAl, such as in improving the company's product catalog. "We've used multiple large language models to accurately create or improve over 850 million pieces of data in the catalog. Without the use of generative AI, this work would have required nearly 100 times the current headcount to complete in the same amount of time," he said.

This highlights the opportunity for retailers to adopt Al-driven technologies to streamline processes, reduce operational costs and enhance the customer experience. By fully integrating Al into business functions, companies can unlock significant efficiencies and drive more personalized, datadriven decision-making at scale.

Next-Generation Product and Shopper Intelligence: Coresight Research Analysis

Technology Challenges for Consumer Industries in the Current Landscape

Retailers and brands are navigating a complex technological landscape and data management challenges, as we detail below.

Fragmented Landscape of Retail Applications

Data are often managed separately for different functions—such as marketing, demand forecasting, merchandising and pricing—leading to the development of uncoordinated strategies and an overall disjointed and poor understanding of data and resulting decisions within an organization. For example, marketing strategies and tactics may not be harmonized with pricing strategies, which could result in a failure to capture the target market.

Demonstrating that there is a big opportunity for retailers to better integrate data across functions, only 41% of US-based retailers have price planning "fully integrated" with each of the five complementary business functions, on average—assortment planning, allocation planning, floor planning, promotion planning and markdown optimization—according to a survey conducted by Coresight Research in February 2024 (see Methodology). The proportion is even lower among retail firms with annual revenue of less than \$1 billion, where only 37% have achieved full integration, which is likely due to their lack of resources and less-developed IT systems compared to higher-revenue retailers.

Hybrid and multi-cloud environments, while beneficial for retail companies in many ways, often increase complexity in data management due to the need to integrate disparate data silos and multiple cloud systems. This can divert retailers' focus toward managing cloud infrastructures, delaying the introduction of new services and market innovation. However, an effective cloud strategy should ideally foster innovation by enabling seamless data integration and management across various platforms, thus allowing retailers to concentrate on developing new features that enhance customer satisfaction and drive growth.

Lack of Analytics in Traditional Data Management Solutions

Many data management solutions lack the analytical capabilities to derive actionable insights from large data sets, limiting their effectiveness in data-driven business decisions. In fact, according to the "2022 Data and Al Executive Survey" by management consulting firm NewVantage Partners, only 26.5% of 94 surveyed Fortune 1000 and industry-leading organizations (across various industries) have created a "data-driven organization."

Due to an analytical shortfall, companies may miss opportunities to optimize inventory, enhance customer experiences and streamline operations.

Lag in Use of Product Insights to Support Key Business Functions

Retailers and brands often experience significant delays in integrating PIM/PXM systems with their existing IT infrastructure due to challenges in system integration and organizational alignment. This leads to the use of wrong or outdated product information across departments such as marketing, merchandising and sales. Timely data are critical to making strategic and proactive business decisions; a lack of real-time product knowledge may lead to misinformed decision-making and slow market adaptability.

A Coresight Research survey of US-based retailers conducted in January 2024 (see Methodology) found that around half (52%) of respondents cannot execute at least 10% of their promotional campaigns properly in any given selling period. Additionally, on average, retailers surveyed misprice 10% of their products under any given category in any given selling period. Such inefficiencies suggest a huge number of lost sales opportunities and underscore the importance of integration and data management. Figure 2. Pricing and Promotion Inefficiencies: Proportion of Promotional Campaigns That Are Not Executed Properly (Left) and Proportion of Products That Are Mispriced Under Any Given Category (Right) in Any Given Selling Period (% of Respondents)



Data Quality Issues

The absence of structured, high-quality data remains a critical barrier to effective AI deployment in retail. AI models rely on high-quality data (accurate, complete, consistent, timely and relevant) to make accurate predictions; poor-quality data hamper model training and performance, leading to incorrect insights and undermining the potential benefits of AI.

This issue is compounded by data complexity, which includes inconsistent formats, missing data and unstructured data. The IBM Global AI Adoption Index 2023 (published in January 2024) highlights that 25% of enterprise-scale organizations (over 1,000 employees) believe that data complexity is a barrier to successful AI adoption.

Barriers to Rapid Innovation

Many consumer companies face challenges related to system performance and extensibility of their current technology infrastructures, which slows down the pace of innovation. A lack of scalability makes it difficult for retailers to introduce new features, change something, or work efficiently during peak periods. According to The Global Innovation Report (2023) published by financial services technology provider FIS, 36% of surveyed senior business leaders in the retail sector cited a lack of internal technology/data as a barrier to innovation.

Overcoming technological challenges is important for retailers that want to increase operational performance, create better customer experiences and maintain a competitive edge. Solid internal technology structures that include data analytics platforms (which unify customer data from multiple channels) and Al-powered inventory management systems (which provide real-time insights) enable retailers to achieve growth, innovate, and respond quickly to market changes and customers' needs.



Characteristics of Modern Platforms

Modern technology platforms must support a wide range of AI and machine learning (ML) models and harness predictive analytics to generate deep customer insights. AI and GenAI adoption rates currently vary across the retail industry, with some companies lacking the technology infrastructure, staff skills or funds to experiment with and roll out AI initiatives. However, we expect investment in, and strategic implementation of, AI applications to continue to expand as more companies realize the potential of the technology to drive business benefits such as improved operational efficiency and enhanced customer experiences. The IBM Global AI Adoption Index highlights that 42% of enterprise-scale companies are currently deploying AI, with an additional 40% exploring its implementation. To remain competitive, it is therefore a strategic imperative for companies in consumer industries to adopt platforms that are AI-ready and capable of leveraging advanced analytics.

To provide advanced data management and capitalize on the power of AI, modern productmanagement platforms should have five key characteristics:

- Enterprise-grade—Next-generation retail platforms must be designed to meet the rigorous demands of enterprise operations. This entails scalability, reliability and the ability to handle large volumes of transactions and data seamlessly, while also ensuring high performance and the capacity to handle heavy workloads.
- Secure—Security is paramount for retail platforms, given the sensitive nature of customer data and financial transactions. Advanced security features, including encryption, multi-factor authentication and continuous monitoring, are essential to protect against data breaches and cyber threats.
- **Cloud-ready**—To support scalability and flexibility, retail platforms need to enable seamless integration with cloud services, allowing retailers to leverage cloud infrastructure for enhanced performance, storage and disaster recovery capabilities.
- Low-code/no-code/extensible—The ability to quickly adapt to changing business needs is critical. Platforms that support low-code/no-code development empower business users to create and modify applications with minimal coding. Additionally, extensibility ensures that the platform can be customized and integrated with other systems as needed.
- Able to manage big data/operate a unified model—Effective management of big data is crucial for deriving actionable insights. Modern retail platforms must facilitate the integration and analysis of vast amounts of data from diverse sources. A unified data model ensures consistency and accuracy, enabling better decision-making and operational efficiency.

Operational Features of Modern Platforms

The adoption of modern technology platforms in retail provides numerous operational benefits that are crucial for retailers aiming to stay competitive in a rapidly evolving market.

A Single Platform and Integrated Applications

Utilizing a single, unified platform with integrated applications streamlines operations and data management across various retail functions, ensuring a seamless flow of information and eliminating data silos. This integration helps retailers to manage their data across merchandising, marketing and digital commerce-eliminating the problem of "app fatigue," where additional efforts are needed to manage applications from numerous vendors. Centralized planning tools help the business match inventory with market demand, improving inventory turnover and minimizing overstocking or stockouts. In addition, integrated pricing systems help optimize price setting and promotional planning through advanced analytics.

We highlight the benefits of integrated technology platforms in Figure 3.

Figure 3. How Modern Product-Management Platforms Enable Various Business Functions in Consumer Industries

PIM/DAM/MDM

Integrating PIM, DAM and MDM ensures consistent, accurate and accessible data across the organization, streamlining product information, and minimizing errors and redundancy.

Merchandising

Centralized planning tools help companies match inventory with market demand, improving inventory turnover and minimizing overstocking or stockouts.

Rich Data

GenAl solutions require access to rich, current data to develop accurate and effective models. Relying on test data limits the potential of Al applications.

Deal Management

Companies can utilize deal management tools to efficiently handle supplier agreements, optimizing supplier relationships and promotions while ensuring compliance.

Pricing and Promotions

Integrated pricing systems help companies optimize price setting and promotional planning through advanced analytics.

Source: Coresight Research

Digital Wave Technology's ONE[™] Platform is a next-generation solution that combines PIM, digital asset management (DAM) and MDM to provide a unified source of truth, facilitating the sharing of consistent, accurate and accessible data across various retail functions. This supports operational efficiency and drives faster time-to-market for products and campaigns, improving alignment with customer expectations and market trends.

Cross-Functional Collaboration

Modern platforms foster collaboration across different business functions, enhancing decision-making, operational efficiency and the ability to respond quickly to market changes with real-time visibility.

Digital Wave Technology's ONE™Platform facilitates collaboration among various teams, such as product designers and marketers (shown in the image below), to enable real-time updates and shared planning.

Cross-functional collaboration enabled by next-generation platforms Source: Digital Wave Technology

Improved Speed-to-Market and Integrated Workflows with Shared Data Model

A unified platform with a shared data model accelerates speed-to-market for new products and services by integrating workflows and ensuring data consistency across the organization. Such platforms enable rapid application development, are self-configurable and scalable, and feature advanced tools to help organizations derive actionable insights from data.

Figure 4. Modern Data-Management Platforms: Features That Drive Integrated Workflows in Consumer Industries

We identify four major, interconnected business benefits of using next-generation product-management platforms, which we detail below. These benefits—achieved through such platforms' ability to deliver consistent, accurate data and facilitate cross-functional collaboration—enable retailers to maintain a competitive edge in the rapidly evolving retail landscape.

Integrated planning, inventory management and purchase order management systems prevent stockouts and overstocks, ensuring that products are available to customers when and where needed.

Greater efficiency

Streamlined operations and automated workflows reduce costs and improve service delivery.

Enhanced profitability

Advanced analytics can optimize pricing, deal management and operations.

What We Think

The Coresight Research View on AI

While AI was envisioned more than 70 years ago, the technology has experienced two major leaps forward in the past decade that have dramatically increased its power and accessibility.

First, the steady decrease in the cost of computing power, outlined by Moore's Law and unlocked by cloud computing, has boosted the capabilities of AI/ML. These two factors have combined to boost computing power to the point of enabling its use in finding relationships among large amounts of data, making highly accurate predictions, which are a part of our everyday lives when we use navigation apps, view optimized video clips or receive personalized product recommendations today.

Second, the advent of GenAl enables software to again analyze enormous amounts of data, responding in human language and with a human-language interface. We believe that the true power of GenAl will be in enabling enterprises to find new insights in their own data with a conversational interface, in addition to the well-publicized applications such as summarizing and drafting text and language translation. GenAl can create content in the form of text, images, videos, and computer code, which could revolutionize the technology sector. GenAl represents the next major revolution in the history of technology, standing on the shoulders of the microprocessor, the Internet, cloud computing and the smartphone.

Implications from This Report

We see huge transformative potential of AI in its integration within a comprehensive consumer insights, product information and digital supply chain strategy. By consolidating and harmonizing product data across point-of-purchase, merchandising, marketing, pricing and more, brands can develop more cohesive and robust strategies to achieve greater agility and responsiveness in a rapidly evolving market landscape, leading to enhanced customer experiences and increased sales. Companies should invest in advanced product and shopper intelligence to unlock new efficiencies, deepen customer relationships, and position themselves ahead of competitors in today's digital-first environment.

Implications for Brands, Retailers and Other Consumer Companies

- Businesses can utilize integrated data management solutions to streamline operations, improve inventory management and enhance decision-making processes across their organization.
- Companies should prioritize the improvement of data quality to ensure effective AI deployment and enable more accurate insights into customer behavior and market trends, enabling them to capture market opportunities more effectively.
- Organizations with siloed data management practices will lag in responding to market changes and customer needs, putting them at a competitive disadvantage.
- Companies can harness AI and ML for predictive analytics and personalized marketing strategies, thereby gaining a competitive edge in the market.

Impacts from AI

- Al leads to improved pricing strategies, customer satisfaction and inventory management with the help of demand forecasting. Al requires and will really shine when leveraging a modern data structure.
- Al will enable retailers to become more productive and increase the level of personalization.
- Al will also drive new capabilities and functionalities when it can draw data from various arms of the retailer.

Notes

Data in this report are as of July 3, 2024.

Methodology

Informing the data in this report are two online surveys of 150 retail business decision-makers in the US, conducted by Coresight Research. The results have a margin of error of +/-10%.

Respondents in our survey conducted on January 30–31, 2024, satisfied the following criteria:

- Companies—Operating in the retail sector (including DIY, drugstores, grocery, liquor, mass merchandisers, and warehouse clubs/wholesalers), with annual revenues of at least \$100 million
- Job title—Senior Director or above who are familiar with the performance metrics of their retail stores

Respondents in our survey conducted on February 1–2, 2024, satisfied the following criteria:

- Their business is operating in the US
- Job title—Senior Manager or above (primary or joint-business decision-makers in regard to pricing)
- Company annual revenue of \$250 million and above
- Departments such as strategy/executive leadership, distribution/merchandising/trade, operations, planning/pricing and finance.
- Sectors including grocery, department stores, beauty, home and home improvement, electronics, drugstores and mass merchandisers.

About Coresight Research Custom Reports

Coresight Research Custom Reports are produced as part of commercial partnerships with leading firms in the retail, technology and startup ecosystems. These Custom Reports present expert analysis and proprietary data on key topics in the retail, technology and related industries, and enable partner companies to communicate their brand and messaging to a wider audience within the context of brand relevant research. This free report is produced in partnership with Digital Wave Technology.

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About Digital Wave Technology

Digital Wave Technology provides turnkey and extensible enterprise AI applications that meet the business-critical needs of global corporations in consumer industries including retail, consumer goods, and healthcare. The company's single integrated analytical platform offers packaged and extensible applications, as well as the flexibility for rapid development of new solutions, giving customers a competitive edge.

Learn more at <u>www.digitalwavetechnology.com</u>.