AI-Driven Platform Solutions for Next-Generation Retail Technologies
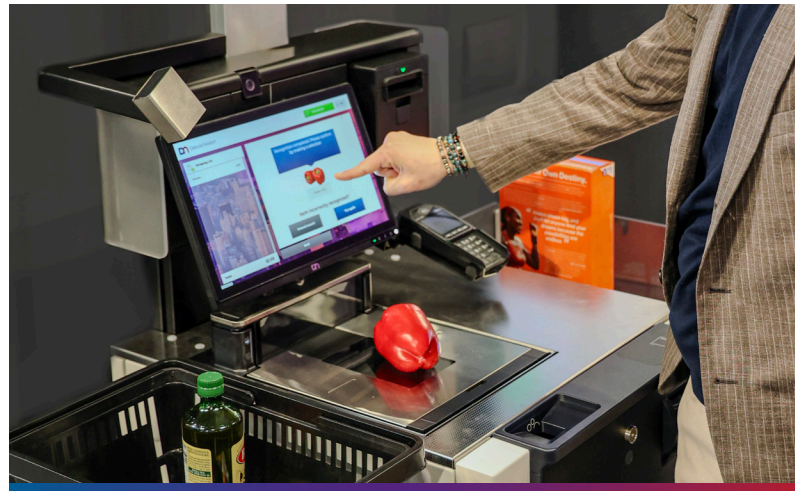
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Diebold Nixdorf

AI is Transforming the Shopper and Staff Journey

Artificial intelligence (AI) is revolutionizing the retail landscape, reshaping the shopper journey with unprecedented speed and efficiency. From checkout automation to loss prevention, AI-driven solutions are enhancing customer experiences,
reducing operational challenges, and boosting profitability.

By reducing friction at every touchpoint, AI empowers retailers to create smoother, more personalized shopping experiences. It simplifies daily tasks for store associates, minimizes the need for manual interventions, and drives operational efficiency across the board. From faster checkouts to smarter inventory and reduced shrink, AI is not just a tool—it's a catalyst for retail transformation.

McKinsey estimates that generative AI alone could unlock $240–$390 billion in value for the retail sector, boosting industry margins by up to 1.9 percentage points.[1]

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[1]Generative AI in retail: LLM to ROI | McKinsey

With AI rapidly reshaping retail, businesses that embrace intelligent checkout solutions can reduce losses, accelerate transactions, and enhance security. Now is the time to future-proof your store with AI-driven innovations—don't get left behind.

The Rise of AI in Retail: A Game-Changer for Retailers

Retailers are continuously looking for ways to optimize store and checkout processes to meet rising customer expectations and operational demands. AI is playing a key role in this transformation, enabling smoother, faster, and more efficient in-store experiences. By reducing friction and streamlining workflows, these innovations help retailers operate more effectively while enhancing the overall shopping journey.

One of the biggest concerns for retailers is shrink, which includes theft, fraud, and operational errors. Traditional security measures often react after the fact, but AI-powered monitoring provides real-time detection, preventing losses before they happen. Intelligent systems can identify missed scans, suspicious behavior, or fraudulent transactions, enabling staff to intervene promptly without disrupting honest customers.

Beyond loss prevention, AI enhances the checkout experience. Automated product recognition eliminates the need for manual lookups, reducing errors and speeding up transactions. AI-powered age verification streamlines compliance, reducing friction for both customers and employees. These innovations help retailers deliver faster, more efficient service while optimizing staff resources.

Retailers that embrace AI-driven solutions gain a competitive advantage, ensuring smoother operations, stronger security, and a better shopping experience. As AI continues to evolve, businesses that adopt these innovations will be better positioned to meet the demands of the modern retail landscape.

Choosing the right AI isn't one-size-fits-all. Every retailer has unique needs—so solutions must fit, scale, and grow with the business. A smart approach makes all the difference.

Effortless Integration with Open APIs

AI must integrate effortlessly, allowing businesses to leverage third-party innovations without costly overhauls.

A Scalable AI Platform for Every Touchpoint

AI should work across all store environments. A unified platform ensures consistency, efficiency, and seamless operation.
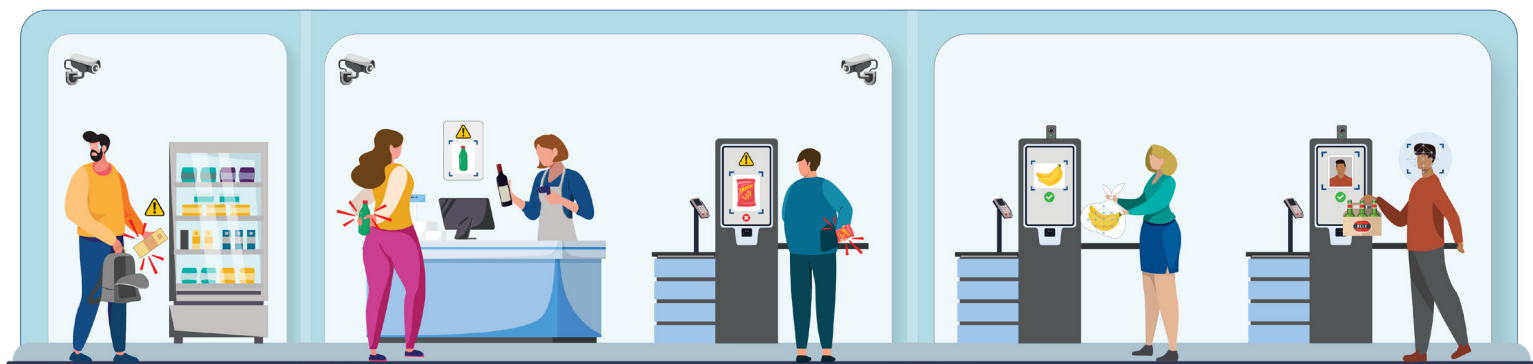
Adaptive Shrink Prevention for Evolving Threats

Retailers need AI-driven solutions that adapt to new shrink patterns, with configurable features that address their unique risks.

Future-Proofing with Continuous Innovation

Retailers need solutions that grow with them— offering regular updates, new capabilities, and long-term adaptability to stay ahead of the competition.

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An Innovative Solution to Optimize Store Operations

The global AI in retail market was valued at USD 11.61 billion in 2024 and is projected to grow at a CAGR of 23.0% through 2030.[2] While this includes a broad range of applications, the rapid adoption of in-store AI technologies—such as real-time monitoring, smart checkout, and automated product recognition—highlights the urgency for retailers to act. As the industry evolves, leveraging AI to streamline store operations, reduce shrink, and enhance the customer experience is becoming essential for staying competitive

To succeed, retailers need AI solutions that are not only powerful but also adaptable, scalable, and future-ready. Modern AI platforms are built to integrate seamlessly with existing systems, support multiple touchpoints, and evolve alongside operational needs.

AI Solutions that Seamlessly Integrate, Scale, and Evolve

- **A modern AI platform integrates seamlessly with third-party technologies**, from POS systems to security cameras and enterprise management tools. Open APIs enable smooth connections with existing infrastructure, allowing businesses to adopt AI without costly system overhauls. This flexibility ensures retailers can maximize the value of their current technology investments while moving toward smarter solutions, such as age verification and fresh produce recognition.

- **It is scalable for every touchpoint, supporting all store environments, from self-checkouts to in-aisle monitoring.** A unified AI platform that integrates with all store touchpoints—whether physical or digital—ensures retailers can streamline their operations, reduce complexity, and maintain consistency across locations. Such platforms also enhance efficiency, reduce wait times for customers, and make it easier to manage the entire store's operations from a single dashboard. The result is a better customer experience and increased operational agility.

- **An AI-powered shrink prevention solution continuously adapt to emerging threats**, offering real-time data insights and configurable features that cater to each retailer's unique needs. From detecting missed scans to identifying fraudulent activities, AI enables proactive prevention without disrupting customer flow. An innovative solution can be customized to fit the specific needs of each store, offering configurable settings that allow retailers to respond dynamically to new shrink trends. This proactive approach helps reduce losses without disrupting the customer shopping experience.

- **The most effective AI platforms offer continuous updates**, introducing new capabilities and integrating emerging technologies. This ensures that retailers stay ahead of industry trends, improve operational efficiency, and deliver enhanced customer experiences without relying on outdated systems.

By embracing AI-driven solutions that are flexible, scalable, and continuously evolving, retailers can enhance operational efficiency, reduce shrink, improve security, and provide a superior customer experience—future-proofing their business in a competitive retail environment.

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[2]Artificial Intelligence in Retail Market Size, Share Report 2030

An Easy Way to Rapidly Transform the Retail Industry

AI is no longer a future vision. It's delivering measurable value in stores today. From reducing shrink and friction to improving speed and compliance, AI empowers retailers to run smarter, safer, and more efficient operations. Diebold Nixdorf's Vynamic® Smart Vision platform and Storevolution™ Advisory Services are designed to help retailers unlock this potential—quickly and at scale.

Vynamic® Smart Vision | Shrink Reduction
Combat shrink across the store with real-time monitoring and intelligent alerts. The system identifies missed scans and suspicious behavior, helping staff intervene quickly without disrupting honest customers.

Vynamic® Smart Vision | Fresh Produce Recognition
Automatically recognize unbarcoded items like produce and baked goods. This reduces lookup errors, speeds up checkout, and minimizes both accidental and intentional shrink.

Vynamic® Smart Vision | Age Verification
Automate age checks for restricted items to ensure compliance, protect privacy, and keep transactions flowing smoothly.

Storevolution™ Advisory Services
Leverage expert guidance to integrate and optimize AI solutions. These services help retailers accelerate impact, improve performance, and plan for long-term growth.

AI-powered solutions are already solving today's retail challenges and they're built to evolve. Advanced features like real-time security alerts and hazard detection further enhance safety and operational efficiency. For example, AI can trigger an emergency response if an employee signals distress, or detect spills on the floor to help prevent accidents. As these capabilities continue to develop, they'll enable faster reactions, reduce risks, and create safer, more resilient store environments.

Stay ahead with Diebold Nixdorf's Vynamic Smart Vision platform—designed to integrate, scale, and deliver lasting value.
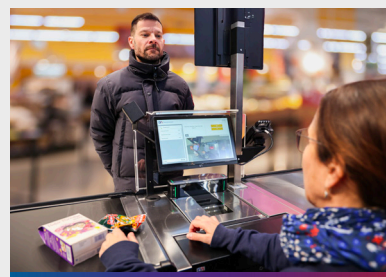
Up to
75%
reduction in employee intervention with Vynamic Smart Vision® | Age Verification.

Up to
67%
increase in processing speed with Vynamic Smart Vision® | Fresh Produce Recognition.

Up to
70%
reduction in shrinkage at self-checkout with Vynamic Smart Vision® | Shrink Reduction.

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Diebold Nixdorf is the right AI partner for retailers looking to seamlessly integrate advanced technology while maintaining operational efficiency. Our AI platform is designed to integrate, scale, and evolve—delivering measurable value across the store.

Effortless Integration with Open APIs

With a flexible, open API approach, Diebold Nixdorf ensures smooth integration with existing systems, reducing costly disruptions and accelerating time to value.

A Scalable AI Platform for Every Touchpoint

Our AI-driven platform supports all retail touchpoints—from self-checkouts to security monitoring—creating a unified and scalable solution that grows with your business.

Adaptive Shrink Prevention for Evolving Threats

Diebold Nixdorf's AI solutions help combat shrink across the entire store. Real-time monitoring and intelligent alerts identify missed scans or fraud at both self-service and traditional checkouts—reducing losses while minimizing customer friction.

Future-Proofing with Continuous Innovation

Our comprehensive suite of AI-powered solutions is continuously updated and extended with new use cases. This ensures retailers always have access to cutting-edge capabilities that evolve with market demands.

Expert Guidance for Your Store

Diebold Nixdorf goes beyond technology by offering expert consulting services. Our Storevolution™ Advisory Services team leverages real-time AI insights to help retailers identify trends, optimize store layouts, and refine loss prevention strategies. Whether it's fine-tuning configurations or adapting to new challenges, we help businesses continuously improve efficiency and security.

Partnering with Diebold Nixdorf means future-proofing retail operations with AI solutions that drive profitability, efficiency, and

Explore how AI-driven platform solutions can revolutionize your business at: **DieboldNixdorf.com/SmartVision.**