



HOW DATA AND AI ARE HELPING RETAILERS GET TRENDY

Technologies powered by data and AI can be gamechangers for retailers to enhance customer experience. But they must overcome the associated challenges to reap the benefits.

It is a bizarre time for consumers. The pandemic may have eased off, but the possibility of inflation and recession keeps economic uncertainty around. Repercussions on consumer behavior remain to be seen.

According to Forrester's [Predictions 2023](#) guide, consumer spending will increase despite economic headwinds. The savings made during the pandemic, and an estimated increase of over 6% in household cash flow in the latter half of 2023, will keep consumer spending intact. This puts the onus on retailers to retain and attract customers by providing them with the best experience.

Activewear company Solfire is one such [example](#) that places utmost importance on customer experience. It aims to build a community comprising customers and maintain lasting relationships. Its stores have smoothie bars and dedicated areas where fitness clubs can socialize and work out. During checkout, it asks customers to fill out their information in an iPad point of sale (POS) system. According to Solfire, most customers do it willingly to stay updated on community events.

The essential elements

Delivering memorable customer experiences is a failsafe path to improved customer satisfaction and loyalty, which drives repeat rate and sales. [Analysis](#) by Harvard Business Review shows that customers with the best experiences spend 140% more than those with the poorest experiences.

Memorable customer experiences improve customer satisfaction and loyalty, driving repeat rate and sales.

Retailers can take customer relationship management strategies to new heights by leveraging the right mix of technologies. This includes:

- Intelligent technologies for autonomous retail
- Online marketplaces and predictive analytics
- Data-driven and automated supply chains
- Automated stock management

Let's explore each of these in detail.

Intelligent technologies for autonomous retail

Consider the convenience of a cashier-less store with a self-checkout option. A surreal space where there is no interaction yet an interconnectedness between the shoppers, suppliers, and partners. This happens through a combination of person detection, object recognition, activity analysis, and pose detection among other aspects. This concept took off through Amazon Go stores, where customers just need to download

the Amazon Go mobile app to enjoy the convenience of [skipping the checkout process](#) completely. Retailers such as Aldi, Carrefour, Sainsbury's and 7-Eleven are also [experimenting](#) with this technology. AI-driven video analytics solutions – that allow real-time monitoring of transactions – help retailers reduce inventory loss caused by theft in a self-checkout environment that lacks staff supervision. In other scenarios, streaming video feed analysis in real time provides retailers visibility on customer traffic congestion areas and lets them redirect staff to packed areas.

The [Infosys Extended Store Solution](#) is an end-customer mobile application that enables customers to scan an item in the store, build the cart, and make contactless payments. This lightweight, noninvasive system provides scan and pay & go capabilities for a contactless checkout experience on consumer smartphones.

Augmented and virtual reality technologies can also provide immersive and memorable digital experiences. Nike partnered with Roblox to create Nikeland, a metaverse where users can dress their avatars in Nike-branded virtual outfits. Louis Vuitton made headlines when it launched Louis: The Game to celebrate its founder's 200th birthday. The phone app lets users follow the protagonist 'Vivienne' through six different worlds in search of collectable non-fungible token (NFT) candles. When it comes to AR and VR, no brand wants to stay behind, be it sporty, high-street, or luxe.

Online marketplaces and predictive analytics

[Analysis](#) by financial services advisory firm iBe shows that online marketplaces could be worth as much as \$7 trillion in sales by 2024. Online marketplaces are ideal platforms for retailers to connect third-party sellers with customers and reap profits. Vendors, especially small businesses, get visibility for their products without setting up an ecommerce platform on their own or incurring heavy expenses. Automating processes eliminates the need for legacy systems along with related inefficiencies for all parties involved. Predictive analytics helps businesses assess their customers' profile and behavior and understand their needs. Customers too benefit from online marketplaces, having access to great deals from a variety of vendors.

For example, a leading sports fashion retailer uses a connected eco-system of suppliers, contract manufacturers, wholesalers, distributors and retailers to improve performance across the supply chain. This holds benefits for all parties involved, improves customer service and boosts loyalty to the brand. Linking multiple roles across a cloud-based platform leads each partner to just do its work better.

Some retailers have created a 'one inventory' model. The capability to fulfill demand from anywhere reduces inventory holding and enables fast response to changes in demand. Promotions can now precisely target micro-markets and zip codes.



Data-driven and automated supply chains

Climate and geopolitical factors have disturbed supply chain operations globally. The issues caused include a lack of visibility regarding demand prediction, product availability, pricing strategy, transportation costs, delivery tracking, last mile optimization, asset visibility and utilization, and carbon footprint.

Organizations can leverage advancements in Data Science, AI, and IoT to solve issues related to supply chain. Access to the right data can help supply chains be agile, resilient, and responsive. It can help detect a problem early or even preempt it and take the necessary measures

Automating tedious tasks in a supply chain saves time and effort, reduces errors, and resolves labor shortage issues. According to the [Lucas Systems Voice of the Warehouse Worker Insights](#), technology [drives](#) employee attraction and retention. Of the respondents surveyed, 90% believe that investment in new technology will attract and retain workers, instead of creating a fear of being replaced. Automation isn't always the bad guy, and perception is changing in its favor.

Automated stock management

This provides a sophisticated option to retailers, wholesalers, and distributors to assess and track their inventory while saving time and reducing human error. Especially where the business

is scaling – introducing new challenges such as management of multiple warehouses – it offers quick real-time visibility into stocks at warehouses and the ability to act on any shortages or excesses. It allows them to set notifications for when their stocks decrease, and automate the reordering to fulfill the shortfall.

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It also offers insights into sales made and what inventory is to be expected, without any manual effort to create or analyze inventory reports. This streamlines the entire process – from receipt to order fulfillment – and manages customer order deliveries flawlessly.

[Infosys Simplified Supply Planning](#) is an advanced supply chain inventory planning solution that offers time-phased replenishment with warehouse and store-level order smoothing. The solution is designed to provide multiple replenishment methods for producing a flexible buy plan for the entire chain.

Clearly, technology trends combined with data and AI can reinvigorate retail. However, this involves its own challenges that businesses must understand and know to tackle.

Challenges associated with data and AI

The Infosys Knowledge Institute's [Data+AI Radar 2022](#) research report found that four out of five surveyed companies have put their first AI model in production less than five years ago. So, most companies are new to building their own AI models and have only basic AI capabilities.

As remarkable as AR and VR may be – and despite more brands experimenting with these technologies – they aren't critical to the work of retailers in terms of brick-and-mortar or online stores. The real value of these technologies is realized when retailers adopt them to improve their supply chain processes. Whether related to predictive demand and supply, or inventory management and seamless delivery, AR and VR can help retailers solve long-standing challenges, and in turn enhance customer experience.

Better capabilities, better outcome

Retailers need to take AI capabilities to new levels to reap the real benefits. Infosys' [Data+AI Radar](#) recommends businesses to focus on three aspects: developing data practices that encourage sharing, binding explanations into advanced AI, and building cross-disciplinary AI teams that focus on business.

Data achieves its purpose when it is circulated. As per Data+AI Radar findings, companies that import data and share their own data more extensively, achieve better financial results and show greater progress toward operating AI at the enterprise scale. Sharing data could work well in supply chains. Maximum benefits are seen in risk management. Sharing and receiving relevant data can help gauge inventory, provide visibility of various links in the supply chain, and drive better communication between them, thus leading to seamless delivery.

As per Infosys' Data+AI report, companies will benefit from developing data practices that encourage sharing, binding explanations into advanced AI, and building cross-disciplinary AI teams concentrating on business.

For example, Internet of Things (IoT) technology allows companies to create a digital twin of physical assets. IoT sensors and digital twins help companies improve uptime and plan ahead for maintenance, repair and spare part needs.

Using data effectively means knowing when, where, and how to use it, as well as how to protect it. Companies must evolve strong data management strategies. The [Infosys report](#) reveals that respondents want to manage data centrally, but this is not what most are doing right now. When data is scattered, most efforts are wasted in obtaining the needed data. Centralized data management consolidates data and helps retailers manage their data easily and make faster decisions.



Using data well requires state-of-the-art data governance. Infosys President Mohit Joshi says, "Companies must be able to securely and instantly share data across platforms and services to enable seamless services to the customer. A strong governance strategy for managing data while ensuring quality and minimizing risk will enable faster development and more sophisticated data-driven decision-making capabilities," adding, "A good mix of secure data controlled with the right privacy controls is a good way for firms to keep in line with regulation but still derive maximum value from the data for the end user."

Businesses must build AI teams the right way to use AI efficiently. The teams should comprise data scientists, experts in business problems, and senior business leaders, so that each set can bring its unique perspective and capabilities.

Today's retailers attempt to embrace the latest technology trends to retain existing customers and attract new ones. As most trends are interrelated with AI and data, businesses must go the extra mile to make this work. The task may be difficult, but the benefits are worthwhile.

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