

Fashion retailer reduces lost sales by 6% with AI-powered inventory optimization

Key Results

6%

less lost sales



improved inventory
productivity

Case Study

About the customer

Number of stores: 270

Number of SKUs: 8,000

Number of countries: 10

Solutions

Allocation
Replenishment
Transfers
Markdowns

Background:

Global fashion retailer scaling with AI

A leading international fashion retailer with over 270 stores and a presence in 10 countries was facing increasing complexity in managing inventory across its expanding omnichannel network. With a product catalog of 8,000 SKUs and a strong focus on women's apparel, footwear and accessories, the brand aimed to deliver exceptional customer experiences by improving product availability, optimizing store performance and ensuring seamless execution across its supply chain. To stay ahead in a fast-moving retail environment, the company prioritized building intelligent, AI-powered inventory management capabilities that could support long-term growth, reduce lost sales and streamline operations.



Invent.ai has enabled us to make better, faster inventory decisions. Their tailored solutions helped us increase sell-through and reduce markdown loss, creating measurable value in a short time.

Merchandising and Supply Chain Director

Challenge:

Manual planning and poor visibility

Despite its strong market position, the retailer struggled with outdated inventory processes that disrupted its ability to respond quickly to fluctuating demand. The lack of centralized visibility and reliance on manual, reactive decisions created inefficiencies in allocation, replenishment and markdown planning. Inventory was often mismatched with actual store demand, leading to stock-outs, markdown losses, and excess inventory that tied up teams. Long lead times, poor inventory productivity, and missed opportunities to meet customer demand underscored the need for a more strategic, data-driven approach to inventory planning.

Solution:

AI-driven allocation and markdown optimization

To transform its inventory operations and future-proof its supply chain, the retailer turned to invent.ai. By implementing invent.ai's Allocation, Replenishment, Transfer and Markdown optimization solutions, the retailer moved toward fully automated, AI-powered inventory decision-making.

The solutions provided real-time data visibility, optimized reorder points and enabled inventory to be dynamically placed where and when it was needed most—across both physical stores and online channels. With Transfer Optimization, the retailer reduced broken assortments by shifting products between stores to balance supply and demand while maximizing sales with minimal logistics overhead. Markdown Optimization allowed for accurate forecasting and strategic discounting at the item level, helping to accelerate sell-through and protect margins throughout the product life cycle.



Results:

Fewer lost sales with higher productivity

Partnering with invent.ai enabled the retailer to significantly improve its inventory management capabilities and achieve measurable financial outcomes. Most notably, the retailer reduced lost sales by 6% by optimizing inventory availability and improving allocation accuracy. Inventory productivity improved as a result of more efficient store transfers, while markdown losses declined thanks to an intuitive, lifecycle-based discounting strategy. With inventory plans now aligned with customer behavior and supply chain realities, the retailer achieved higher service levels, reduced excess inventory and strengthened its bottom line. Now equipped with a scalable, AI-powered inventory planning system, the retailer is more agile, data-driven and well-positioned to meet future challenges in fashion retail.

Looking ahead, the retailer plans to continue its successful partnership with invent.ai and expand its use of AI-powered inventory planning solutions to further enhance operational efficiency and customer satisfaction.

Results for this retailer included:

- **Lost sales reduced by 6%**
- **Inventory productivity improved**
- **Markdown losses declined**
- **Higher service levels**
- **Reduced excess inventory**
- **Strengthened bottom line**





About invent.ai

Invent.ai is a multi-agentic AI-decisioning platform that enables retailers to turn data into real-time decisions and automated actions across inventory, pricing and merchandising. Powered by a multi-agentic AI architecture, the platform predicts outcomes, refines strategies and executes merchandising decisions at scale —driving measurable sales, revenue and margin performance. By combining advanced AI with deep retail expertise, invent.ai helps retailers across the globe navigate dynamic markets, improve operational efficiency and achieve sustainable financial outcomes.

Invent.ai is recognized in the Gartner® Market Guide for Retail Forecasting, Allocation and Replenishment Solutions and for Retail Unified Price, Promotion and Markdown Optimization Applications – Short Life Cycle. The company has also received the RetailTech Breakthrough Awards' Customer Experience Award, SupplyChainBrain's Great Supply Chain Partner recognition and Supply & Demand Chain Executive's Top Supply Chain Projects award. With SOC 2 and ISO 27001 certifications, invent.ai ensures security and data protection across all AI-powered solutions.



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