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Agentic demand forecasting and vendor automation across an 80-store fleet

A specialty retailer replaced reactive reordering and spreadsheet-driven vendor comms with governed agents that forecast demand and draft purchase orders for human approval.

Client: A mid-size specialty retailer

31%

fewer stockouts

22%

lower markdown loss

15 hrs

saved per buyer per week

1.4×

inventory turns

THE CHALLENGE

Reordering was reactive — stockouts on the winners, overstock and markdowns on everything else — while buyers spent their weeks buried in vendor email threads and disconnected spreadsheets. Data sat trapped in systems that didn't talk to each other.

THE APPROACH

KOI built a set of governed agents on top of the retailer's existing systems: a forecasting agent that flags stockout and overstock risk by SKU and store, a replenishment agent that drafts purchase orders for buyer approval, and a vendor-communications agent that reads inbound vendor email, tracks confirmations, and drafts replies. No purchase order is sent without a human sign-off, and every action is logged.

◆ Demand forecasting by SKU and store

◆ Replenishment / purchase-order drafting

◆ Vendor-communications triage

THE RESULTS

Buyers moved from firefighting to judgment calls — approving agent-drafted POs and exceptions instead of building them by hand. Shelves stayed stocked on the fast movers, markdowns fell on the slow ones, and vendor threads stopped piling up.

“It's like giving every buyer an analyst who never sleeps — but we still make the call.”

