FLO

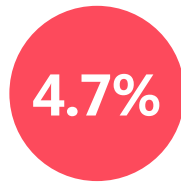## Omni-Channel Demand Forecasting, Allocation, and Replenishment: **FLO Reduces Lost Sales by 12%**

KEY RESULTS

12%
Lost sales reduction

4.7%
Net profit improvement

SOLUTIONS

- Allocation Optimization
- Replenishment Optimization
- Markdown Optimization
- Transfer Optimization

With Invent Analytics, we have accelerated our demand forecasting, allocation, replenishment capabilities significantly. Invent Analytics not only has the right inventory optimization solutions, but their approach and their deep understanding of omni-channel retailing enabled us to adapt and thrive in the omni-channel retail space."

Burak Ovunc
CEO
FLO

The FLO customer success story at a glance

FLO is one of Europe's largest footwear retailers, currently operating in 21 countries and 3 continents. The retailer serves millions of customers everyday through its wide retail network of 650+ stores and its multi-brand e-commerce channels.

The retailer aimed to increase forecast accuracy, maximize availability, and optimize inventory smartly to improve supply chain efficiency. FLO also needed superior omni-channel inventory planning capabilities to reduce lost sales, increase sell-through and improve fulfillment efficiency.

FLO rolled out Invent Analytics' AI-based retail planning solutions, including Allocation Optimization, Replenishment Optimization, Transfer Optimization, and Markdown Optimization. As a result, leading footwear retailer has reduced out-of-stocks and inventory, lowered fulfillment costs, and improved gross profit.

About FLO

- **Number of Employees:** 11000+
- **Number of Stores:** 650+
- **Number of DCs:** 15
- **Website:** www.flo.com.tr

invent
ANALYTICS

The challenge: Making optimized allocation and replenishment decisions

As a leading footwear retail chain, FLO wanted to generate highly accurate forecasts at all levels of granularity and determine the right amount of inventory required in their stores and distribution centers.

The retailer needed to replenish stores, DCs, and hub-stores with the right amount of inventory at the right time in anticipation of omni-channel demand that could be fulfilled from every possible source.

Gaining a full-season perspective to enable more accurate and timely allocations and making profit-optimized inventory decisions was also critical for FLO.

Choosing Invent Analytics

After evaluating multiple vendors, FLO selected Invent Analytics to meet their evolving omni-channel retail needs.

Invent Analytics' margin-driven, profit-optimizing science, tailor-fit algorithms, and AI-powered probabilistic demand forecasting offered everything we're looking for. Their solutions enable us to achieve the most profitable inventory levels using a sophisticated economic model that analyzes demand patterns, inventory costs, margins, and other parameters."

Hakan Ugur
Chief Merchandising Officer
FLO

The Impact: Upgrading inventory decisions to a financial optimization-driving process

FLO implemented Invent Analytics' tailor-fit solutions. Invent Analytics delivered speed to value and proved the benefits of its profit-optimal solutions with pre-go-live simulations and A/B testing.

Following the implementation, FLO upgraded its inventory decisions from a judgment-driven, KPI-measured process to a financial optimization-driven and measured process. The retailer was able to deliver superior omni-channel customer experiences while increasing margins.

Benefiting from AI-powered demand forecasting

Every day, Invent Analytics' system generates forecasts at all levels of granularity. The solution using explainable AI and fast learning algorithms predicts how, when and where FLO's omni-channel customers want their orders to be fulfilled.

Advanced allocation and replenishment optimization

With Invent Analytics' Allocation and Replenishment Optimization, FLO sends the right amount of inventory to its stores, reducing left-over risks at stores and early stock-out risks at the distribution centers.

As a result of the dynamic and smart positioning of inventory, FLO gets higher sell-through and reduces overall fulfillment costs. The retailer optimizes inventory by anticipating omni-fullfilment of demand and easily calculates optimal inventory levels for each item-store-day.

While balancing lost margin from out-of-stock and the cost of carrying inventory, FLO ultimately achieves better inventory planning.

KEY INNOVATION

Size and case pack optimization at a store-level

Invent Analytics' Size Optimization predicts FLO's future sales and inventory needs by size and determines the profit optimized case-pack configurations to meet customer demand at a store level.

Using AI-based advanced analytics, the system identifies stores with similar size selling patterns to create more granular profiles. It clusters them by size-demand ratios and match size profiles to forecasted demand.

Integrated with Initial Allocation and Replenishment systems, Invent Analytics' Pre-Pack Optimization system evaluates and optimizes product packages and makes new assortment suggestions.

It also determines size-level store needs and matches case packs to fulfill demand for each store. The system helps FLO to improve operational efficiency, increase sales, and reduce lost sales and markdowns at a size level, contributing to a 4.7% net profit.

Financial impact of pre-pack optimization

Demand Distribution by Store Cluster
Size Level
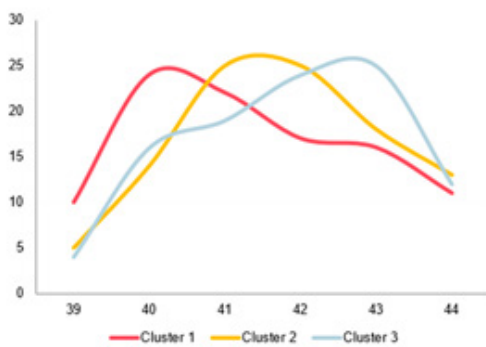
Lost Sales Distribution
Size Level
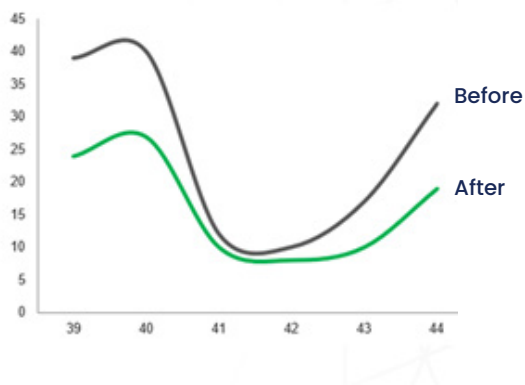
Optimally timed markdowns

With Invent Analytics' Markdown Optimization, FLO accelerates its margin growth by optimizing markdowns throughout the product lifecycle.

Invent Analytics' Markdown Optimization solution optimizes FLO's markdown path through the season and directly improves the retailer's margin and end-of-season sell-through.

Increasing omni-channel profitability by rebalancing inventory across locations

Using Invent Analytics' Transfer Optimization solution, FLO rebalances inventory across locations for maximum efficiency. By moving products from underperforming locations to other locations where demand is higher, FLO minimizes lost sales and markdown losses.

KEY RESULTS

Increased availability, reduced lost sales

With Invent Analytics, FLO has achieved significant business results, increased its availability from 71% to 94% and reduced lost sales from 15% to 3%.by 10,6%.

Future-ready next step: Omni-Network

In 2021, FLO started its new Omni-Network Project with Invent Analytics. FLO focused on knowing the network structure best positions their supply chain to fulfill omni-channel customer demand.

The retailer wanted to assess how many DCs and hub stores they need to serve to which locations of stores and customers. And more importantly, they wanted to see what alterations of network structure are necessary to better position their inventory to reach their online customers on time and in the most cost-effective way possible.

"With Invent Analytics' Omni-Network, we were able to move from 62 omni-store network up to 360 omni- store network to be able to obtain 2.7% improvement in their annual sales revenue. That also means around 17% improvement in shipment duration while obtaining 1.1% additional gross profit and 0.9% additional net profit without any additional inventory," said Burak Ovunc, CEO of FLO.
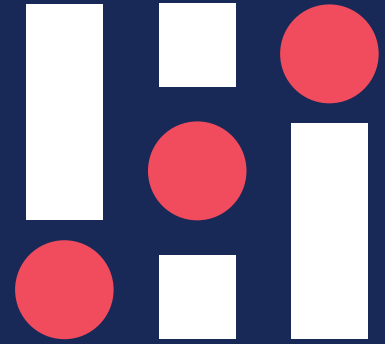
About Invent Analytics

Invent Analytics' Omni-AI **delivers significant financial improvement** by empowering retailers to **profit-optimize** their supply chain. It orchestrates a retailer's entire supply chain **by unifying network planning, inventory and price optimization, and fulfillment in one framework.**

Invent Analytics puts your **omni-customers at the heart of its tailor-fit solutions**. It **proves the financial benefits** with pre-go-live simulations and rigorous **A/B testing.** Invent Analytics' over 30 clients have experienced a **2-6% increase in profitability.**

Invent Analytics' Omni-AI SaaS solutions are:

- Omni-Network Design
- Omni-Plan Suite
  - Omni-Demand Forecasting
  - Omni-Store and DC Replenishment Optimization
  - Omni-Allocation Optimization
  - Omni-Transfer Optimization
  - Markdown Optimization
  - Assortment Optimization
  - Dynamic and Competitive Price Optimization
- Omni-Fulfillment

Invent Analytics has been selected as the **Supply Chain Technology Company by Retail Industry Leaders Association (RILA)** and **won the 2020 Innovation Awards for Supply Chain.**

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