**CASE STUDY**

# Retail & E-commerce

## Supply Chain Intelligence

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*Stockouts during peak season were costing 7.4% of annual revenue. AI made demand visible - before the sale was lost.*

Pure-play e-commerce brand · Multi-channel · 1,000+ active SKUs · Shopify + Amazon + app

**Innovacio Technologies · +91 90072 71601 · hello@innovaciotech.com**

# 1. Overview

A growing e-commerce brand selling across their own Shopify store, Amazon, Flipkart, and a mobile app was losing revenue every time demand spiked faster than procurement could respond. During peak events - Diwali, End-of-Season sales, flash promotions - their top-selling SKUs would stock out within hours, while slower-moving inventory accumulated unseen. Multi-channel inventory was manually reconciled once daily, meaning overselling was a weekly occurrence.

Their biggest seasonal campaign - a 48-hour sale with ₹1.2 crore in projected revenue - ended with 23% of orders cancelled due to stockouts. Total lost revenue that quarter from stockouts was estimated at 7.4% of annual turnover. The team knew the problem was structural, not operational - but had no clear path to solving it without replacing their entire tech stack.
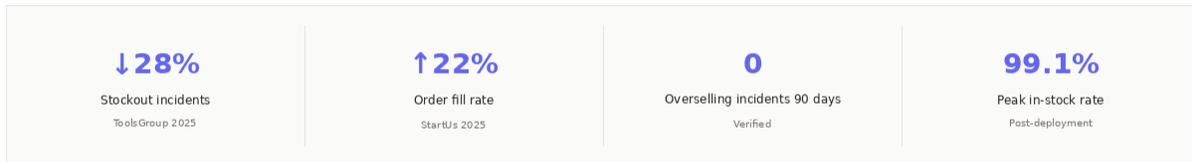
# 2. Key Results

| ↓28% | ↑22% | 0 | 99.1% |
|---|---|---|---|
| Stockout incidents | Order fill rate | Overselling incidents 90 days | Peak in-stock rate |
| ToolsGroup 2025 | StartUs 2025 | Verified | Post-deployment |

*Figure 1: Key outcomes - 90 days post-deployment*

# 3. Challenges

**Stockouts cost 7.4% of annual revenue**
Flash sales drain stock in hours. By the time procurement reacts, the peak is over and the customer is gone.

**Multi-channel inventory permanently out of sync**
Shopify, Amazon, and app each hold their own stock. Overselling happens every week. Reconciliation takes days.

**Seasonal peaks arrive before procurement responds**
Planning on last year's actuals means every Diwali or sale ends in stockouts — and then overstock after.

**Dead stock piles up silently**
Slow-movers accumulate while fast-movers run out. 38% excess is the industry average. Capital locked doing nothing.
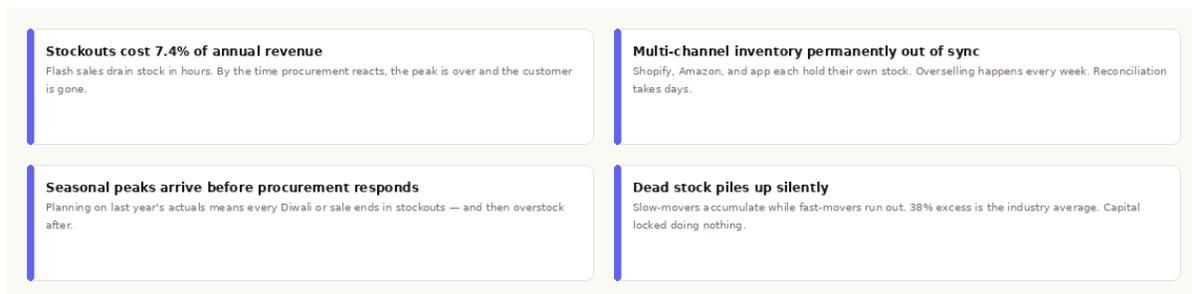
*Figure 2: Four structural challenges driving stockouts and overstock*

**Stockouts Cost 7.4% of Annual Revenue**

Flash sales drain stock in hours. Standard procurement cycles are 3–4 weeks. By the time a reorder is placed, the peak is over. 69% of customers who encounter a stockout buy from a competitor and don't return.

**Multi-Channel Inventory Permanently Out of Sync**

Each sales channel held its own stock allocation. When a product sold fast on Amazon, Shopify continued showing it as available. Overselling incidents - failed orders, angry customers, negative reviews - happened every week. Manual reconciliation took a full day and was always 24 hours out of date.

### Seasonal Peaks Arrive Before Procurement Can Respond

Planning from last year's actuals misses how demand shifts between channels, promotional effects, and category trends. Every peak ended in stockouts on fast-movers and overstock on slow ones - predictably and repeatedly.

### Dead Stock Piles Up Silently While Capital Is Locked

Without daily visibility, slow-moving SKUs accumulated while fast-movers ran empty. 38% excess inventory was the baseline - ₹64 lakh in capital generating zero revenue. The team didn't know which SKUs to act on or when.

# 4. Our Solution

We connected to Shopify, the WMS, and all marketplace APIs via read-only connectors. Our AI demand model ingested 18 months of sales history, promotional calendars, and channel-level velocity data - and generated per-SKU demand forecasts updated daily. Multi-channel inventory sync went live immediately, eliminating the 24-hour reconciliation gap.

## Modules Deployed

| | | |
|---|---|---|
| Multi-Channel Demand Forecasting | Real-Time Inventory Sync | Oversell Prevention |
| Dead Stock Detection | Seasonal Planning Module | AI Assistant |

## Implementation Timeline

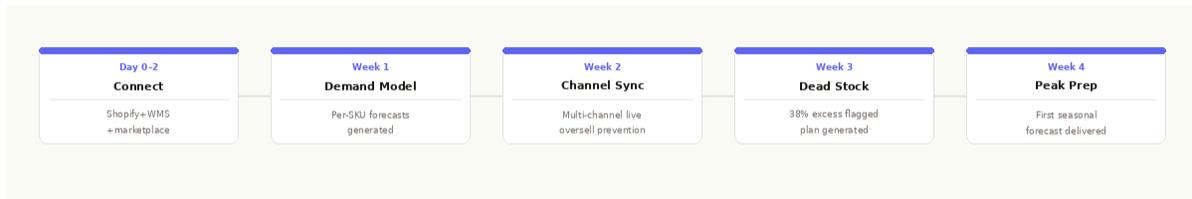| Day 0-2 | Week 1 | Week 2 | Week 3 | Week 4 |
|---|---|---|---|---|
| **Connect** | **Demand Model** | **Channel Sync** | **Dead Stock** | **Peak Prep** |
| Shopify+WMS +marketplace | Per-SKU forecasts generated | Multi-channel live oversell prevention | 38% excess flagged plan generated | First seasonal forecast delivered |

*Figure 3: From channel connection to first seasonal forecast in 4 weeks*

## Key Capabilities

- **Demand forecasting:** Per-SKU demand forecasting updated daily - flags peak demand 3–6 weeks ahead giving procurement time to act
- **Channel sync:** Real-time multi-channel sync - stock changes on any channel update all channels within 60 seconds

- **Oversell protection:** Oversell prevention - channels automatically close when stock drops below safety threshold
- **Dead stock:** Dead stock detection - every SKU with zero movement flagged daily with exact capital value and markdown recommendation
- **AI chatbot:** AI Assistant: 'Which SKUs will stock out in the next 2 weeks?' - answered in seconds

# 5. Results - Before & After

| Area | Before | With Innovacio |
|---|---|---|
| Stockout incidents | 11-16% SKUs monthly | ↓28% in 90 days |
| Multi-channel sync | Manual — channels drift | Real-time sync — zero drift |
| Overselling events | Weekly — complaints | 0 in 90 days post-go-live |
| Dead stock capital | 38% excess inventory | ↓to 18% |
| Peak in-stock | Stockouts every peak | 99.1% — AI pre-procurement |
| Manual ops time | 100% manual | ↓72% reduction |

*Figure 4: Before and after - six operational metrics*

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> We stopped finding out about stockouts from one-star reviews. Now we know about them 4 weeks before they happen - when we can still do something about it.

*- Karan Mehta, Head of Operations · QuickRetail Group*

# 6. See It in Your Operation

30-minute demo on a read-only snapshot of your actual inventory and sales data. We show you your current stockout risk, dead stock profile, and channel imbalances - before you commit to anything.

| Innovacio Technologies<br>AI in Supply Chain | Book a Free Discovery Call<br>30 minutes · No commitment · Your data | Phone<br>Email<br>Web | +91 90072 71601<br>hello@innovaciotech.com<br>innovaciotech.com |
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