



MULTI-DC DISTRIBUTION INTELLIGENCE

DC-1 Has Surplus. DC-3 Has Stockout. Nobody Knows.

ShivAI Distributor Inventory Planner v2.0 —10 AI forecasting models, Newsvendor optimization, 13 data connectors plus multi-DC management, inter-DC stock transfers, festival demand planning, dead stock rationalization, supplier performance tracking, and working capital analytics. The command center for distribution networks.

THE MULTI-DC NIGHTMARE

When You Scale from 1 Warehouse to 5, Everything Breaks

<p>Rs.40L of Same SKU in Wrong DC DC-1 sitting on 3 months of Widget-A while DC-3 stocks out and loses the customer. No visibility across DCs. No transfer mechanism.</p>	<p>Festival Stock: Too Late or Too Much Diwali demand spikes 30%. You find out in November. Should have ordered in September. Next year you over-order 'just in case.' Cash stuck.</p>
<p>Suppliers Getting Worse — No Data Lead times are slipping. Fill rates dropping. But you have no scorecard, no trend, no leverage in negotiation. Just gut feel.</p>	<p>Rs.1.2 Cr Working Capital — Where? CFO asks how much cash is locked in inventory. 'Let me check' takes 2 days across 5 DCs. No DIO calculation. No optimization.</p>

AI CORE PLUS NEW NETWORK INTELLIGENCE

10 Forecast Models + 5 Multi-DC Modules

10 AI models, Newsvendor math, 13 connectors, explainability. Add distribution network layer — managing multiple DCs as a system, not independent silos.

5 MODULES FOR DISTRIBUTION NETWORKS

<p>1. Multi-DC Manager Central registry for all DCs. Hub-spoke or peer network topology. Per-DC namespaced data. Consolidated views across all DCs. Combined inventory and combined orders in one table.</p>	<p>2. Stock Transfer Engine Identifies surplus vs deficit across DCs per SKU. Calculates transfer qty. Factors transport cost. Only recommends when net savings > 0. Auto-reduces PO recommendations for receiving DC. Frees working capital instead of new purchases.</p>
<p>3. Festival / Seasonal Scenario Planner 8 Indian festival presets: Diwali, Pongal, Holi, Eid, Onam, Navratri, Tamil New Year, Christmas. Shows historical uplift from past data. Applies uplift % per SKU. Re-runs Newsvendor to compute incremental PO quantities and Rs. value. Back-calculates ORDER DEADLINE from supplier lead times.</p>	<p>4. Supplier Performance Tracker 5 metrics from actual PO history: On-Time Delivery Rate, Average Lead Time vs Promised, Fill Rate (qty received / ordered), Lead Time Trend (improving or worsening?). Auto-suggested safety stock adjustment for unreliable suppliers. Data-driven negotiation leverage.</p>
<p>5. Dead Stock & SKU Rationalization 4-tier classification: Dead (zero movement 90 days), Slow mover, Overstock, Near-expiry. Suggests: markdown qty with estimated revenue, inter-DC transfer to liquidate, discontinue flag. Recovers locked working capital.</p>	<p>6. Working Capital Dashboard CFO view: inventory value locked per DC and total, Days Inventory Outstanding (DIO), projected cash outflow from recommended POs, working capital freed by stock transfers, revenue-weighted margin by SKU. Answers 'how much cash is in inventory?' in seconds.</p>

DCs: **2**

Total Orders: **8,413**

SKUs Forecast: **10**

Total PO Value: **₹22,050,262**

Distribution Centre Status

DC - DC 1

✔ Data loaded - 📡 ETS

● 0 Critical ● 0 High ● 5 Medium ● 0 OK

DC - DC 2

✔ Data loaded - 📡 SARIMA

● 0 Critical ● 1 High ● 4 Medium ● 0 OK

⚠ Urgent Reorders Across All DCs

DC	🚨	SKU	Product	On Hand	Safety Stock	Order Qty
DC 2	●	SKU-101	Premium Mixer	55	397	1281
DC 1	●	SKU-101	Premium Mixer	90	163	1323
DC 1	●	SKU-103	Compact Grinder	230	0	818
DC 1	●	SKU-102	Regular Mixer	210	86	725

Multi-DC Dashboard — per-DC stock levels, urgent reorders, network topology view



Move Stock Between DCs. Save Cash. Skip the PO.

Step 1: Find What's Sitting Idle The system scans every SKU across every warehouse. If one location is holding significantly more than it needs, that's surplus — capital sitting on a shelf doing nothing.

Step 2: Find What's Running Low Simultaneously, it identifies locations where the same SKU is dangerously low — the kind of shortfall that leads to a lost sale tomorrow and an emergency purchase order today.

Step 3: Match Surplus to Shortfall When one warehouse has excess of exactly what another warehouse needs, the system proposes a transfer — factoring in the transport cost between the two locations.

Step 4: Only Recommend When It Makes Financial Sense Every proposed transfer is evaluated against a simple test: does the cost of moving the stock beat the cost of buying it fresh? If transport eats up the savings, the transfer isn't recommended. You only see opportunities that genuinely save money.

Step 5: Automatically Reduce New Purchases When a transfer is approved, the system reduces the receiving warehouse's purchase recommendation by the same quantity. You don't buy what you already own. Cash stays in the business instead of going to the supplier.



Supplier Performance Dashboard — Lead time trend, Fill rates by supplier, Full supplier scorecard

FESTIVAL DEMAND PLANNING — BUILT FOR INDIA

Diwali Is Coming. Your Suppliers Need 45 Days Notice.

The Scenario Planner has 8 Indian festival presets built in. Select a festival, and the system analyzes your historical sales data to show the actual demand uplift from previous years. Apply that uplift (or override per SKU), and it re-runs the full Newsvendor optimization to calculate exactly how many extra units to order, from which suppliers, by what date.

Diwali Oct-Nov. Biggest spike for FMCG, consumer goods, gifting.	Pongal/Sankranti Jan. Regional spike for groceries, agri supplies, clothing.	Navratri Oct. Appliances, home goods, festive category demand.	Custom Window Define any date range. Back-to-school, monsoon, year-end.
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PLUS: THE COMPLETE AI CORE

10 AI Forecast Models NaiveLast3M, ETS, SARIMA, Croston, TSB, RandomForest, XGBoost, LightGBM, CatBoost, Prophet + Inverse-RMSE Ensemble.	Newsvendor Optimization Computes S* per SKU. Balances service level vs holding cost. Expected profit per cycle. What-if panel for price/lead time changes.	13 Data Connectors Tally, SAP B1, Marg, Busy, Zoho, Shopify, Amazon, Flipkart, QuickBooks, PostgreSQL, Generic POS, Simple Excel, Custom YAML.
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THE BUSINESS CASE

40% Fewer stockouts across DCs	Rs.20L+ Freed via stock transfers	5 Multi-DC analytics modules	8 Indian festivals built in
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WHO IT'S FOR

Regional Distributors 2-10 warehouses, Rs.50-300 Cr turnover, multiple territories	FMCG Networks High SKU velocity, seasonal spikes, festival-driven demand	Auto Parts Chains Long tail SKUs, intermittent demand, critical availability	Pharma Distribution Expiry-sensitive, regulatory, cold chain across locations
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Your DCs Are a Network. Start Managing Them Like One.

Start your 30-day Pilot (₹4,999) | contact@shivaiscsolutions.com | www.shivaiscsolutions.com