

Building Real-Time Landed Cost Intelligence to Respond to Trade Route Disruptions and Commodity Swings

Case Study

Business Impact

90% ↑

forecasting
accuracy

~2% ↓

in margin
leakage

50% ↓

in landed cost
variance

32% ↓

in decision delay

Problem Statement

A premium beverage company with strong regional sourcing diversity was hit hard by disrupted trade corridors and quarterly commodity volatility. Barley prices surged 18% in one quarter, and glass bottle costs varied up to 22% between local and offshore suppliers. The organization lacked a system to model such fluctuations in real-time or simulate the impact of logistics changes on landed cost. This delay resulted in reactive pricing, missed promotion windows, and unanticipated gross margin dips. The finance and operations teams needed forward visibility into cost trends, broken down by component and region.

Solution Overview

- Integrated global commodity indices and freight APIs for real-time landed cost updates
- Modeled alternate trade routes to calculate shipping and duty impact
- Enabled component-level simulations (e.g., cap vs. label cost delta by supplier region)
- Built alert systems for volatility spikes in input costs, with pricing risk thresholds
- Created a forecasting module to predict 30/60/90-day input cost trajectories using historical and market data
- Allowed operations to simulate the landed cost impact of rerouting shipments or switching suppliers
- Included dynamic dashboards to view landed cost by SKU, product family, and sourcing node