Pull Logic

CASE STUDY

North American Tractor Manufacturer

Revolutionizing End-to-End Inventory Management with AI-Driven Product Availability Readiness for a Leading North American Tractor Manufacturer

The Problem

The manufacturer faced significant challenges in managing their inventory across a vast network of dealers and regional distribution centers, including:

- Stagnant Sales and Potentially High Lost Sales: Lower than desired sales growth and lack of predictive analytics capabilities to identify potential lost sales.
- Higher Unproductive Inventory and Low Inventory Turns: Increase in obsolete or slow-moving stock levels due to lack of predictive capabilities and customer-driven inventory management strategies.
- Increasing Aged Inventory Levels: Accumulation of slow-moving stock due to sub-optimal inventory deployment, tying up capital and storage space, furthermore leading to missed sales opportunities.
- Lack of a Customer-Centric Approach: Insufficient consideration of customer preferences, behavior, and market trends in forecasting and inventory management.

The Solution

An end-to-end inventory management approach leveraging AI-driven customer behavior modeling and dynamic demand forecasting, comprising of:

- **Smart Inventory Deployment:** Utilizing demand-driven solutions to optimize inventory deployment across the network.
- **Optimized Production Planning:** Ensuring high product availability by integrating AI with production planning, crucial for managing long lead time suppliers.
- **Intelligent Sourcing:** Employing dynamic, real-time demand forecasting and supplier monitoring to enhance sourcing decisions.
- **Dynamic Real-time Performance Tracking:** Implementing analytics-driven metrics and AI to continuously monitor and predict current and future performance.

Partnership with Pull Logic

The manufacturer partnered with Pull Logic to leverage their AI-driven inventory optimization tech and innovative Product Availability Readiness (PAR) metric, based on research from the Georgia Institute of Technology and the work of Dr. Benoit Montreuil, who leads the Supply Chain and Logistics Institute there.

Pull Logic

Pull Logic Solution Overview

Product Availability Readiness

Future-looking KPI providing an inventory health score for each supply chain node, ensuring 99% robustness in satisfying unpredictable demand.

Availability-Centric Approach

Focuses on maintaining robust product availability across all nodes in the network.

Demand Forecasting

Based on actual demand calculated from historical sales and inventory positions, not just historical sales.

Product Substitution

Enables product substitution to meet demand and minimize stockouts.

Showcasing

Determines optimal product displays at retailers to maximize purchase probability

Digital Twin

Enables companies to compare Pull logic simulation results with their own processes and assess KPIs.

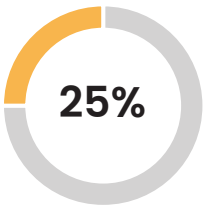
Quick Implementation

Designed for rapid deployment and integration.

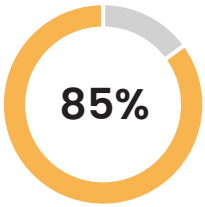
E-commerce and In-Store Optimization

Provides solutions for both online and physical retail environments.

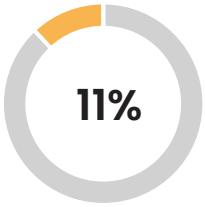
Results



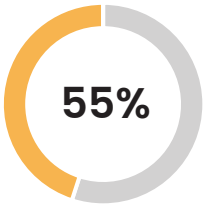
Increase in Revenue



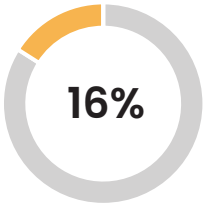
Reduction in lost sales



Improvement in product availability readiness at dealers



Reduction in Inventory Value and Financing Charges



Reduction in Balance Sheet Utilization

Conclusion

Pull Logic's AI-driven technology enabled the tractor manufacturer to considerably improve operational alignment and proactively monitor both current and potential performance trajectories. By leveraging advanced AI algorithms, the manufacturer observed significant improvements in growth, efficiency, customer satisfaction, and supply chain robustness. Furthermore, Pull Logic's rapid implementation and comprehensive support made it an invaluable asset to the manufacturer.

hello@pulllogic.com
www.pulllogic.com

1447 Peachtree St NE,
Suite 200, Atlanta, GA, 30309