

CASE STUDY

A Leading Grocery Retailer in South East Asia Slashes Stockouts by 63% and Inventory Costs by \$ 1.5 Million

SEGMENT | Grocery

PRODUCT | Order Right

CHALLENGES | Chronic out-of-stock Instances and High Inventory Investments

RESULTS

- 63% Reduction in Out-of-Stock Instances
- 17% Reduction in Inventory Investments
- Inventory Costs Slashed by \$ 1.5 Million
- Automated Replenishment Built on AI/ML-Driven Forecasting

ABOUT THE CUSTOMER

One of the leading retail brands in South East Asia with over 100 stores across the region in diverse categories, was grappling with persistent overstocks and out-of-stock events leading to cost bleeds, wastage, and bloated inventory costs, which spurred secondary challenges like lost sales and customer churn.



CHALLENGES

The client relied on manual interventions to perform demand and replenishment planning. With changing times especially post-2019, the client felt that their current system was inadequate to respond to shifts in demand patterns and supply chain challenges. The client faced a huge dip in replenishment accuracy and stock issues were rampant across multiple product locations, among other challenges, such as:

- Frequent out-of-stock due to demand volatility and inability to respond to supply chain disruptions
- Promotions would often lead to stockouts and overstock situations leading to customer distress and margin erosion respectively
- Leveraging Retail data was proving to be a challenge as it needed support from data scientists to treat for sparse data, outliers, and noise. New product launches were often fraught with huge planning inaccuracies.

The client was looking for a comprehensive, intuitive, scalable, and robust AI/ML-based solution to generate precise order plans, and avoid stockouts and overstocks while optimizing inventory and improving shelf availability in an accurate and timely manner.

HYPERLOCAL PRECISION WITH ORDER RIGHT

Algomomy's Order Right perfectly met the client's need for an ultra-granular, robust, and adaptive replenishment ordering system. Order Right utilizes a suite of custom machine learning algorithms that adjust to demand and supply chain dynamics at a hyperlocal level, accounting for both increases and shifts in demand. Its robust framework swiftly addresses retail data challenges such as sparse data, outliers, and noise, allowing your teams to focus on business without worrying about data interventions.

FINE-TUNING REPLENISHMENT TO HYPERLOCAL DEMAND AND SUPPLY CHAIN DYNAMICS

Algonomy's Order Right helped the client to automate and optimize replenishment schedules for 200+ categories across all store locations in the region via a single platform. Here are the key highlights of the solution:



Hyperlocal ML-based Demand Forecasting

With Order Right, the client transitioned from sales heuristics-based demand forecasting to ML-based multi-variate demand forecasting at a highly detailed level. The models were trained using various factors such as product hierarchy, holidays, events, promotions, discounts, and demand deviations. Order Right automatically selects the optimal model for each product-location combination based on best-fit criteria, significantly improving the demand forecast accuracy for 90% of SKUs.



Curbing Cannibalization and Promotional Chaos

The previous replenishment framework depended on manual interventions to account for promotional effects like cannibalization. With Order Right, the client shifted to automated adjustments of replenishment levels, both up and down, between products, taking into account promotions and availability.



Mitigating Supply Chain Disruptions

Before Order Right, the client depended on suppliers to deliver according to agreed-upon contracts, and any deviations from the SLAs caused stockouts and supply chain disruptions. With Order Right, the client transitioned to dynamic modeling of key factors like lead time, MOQ, minimum size pack, safety stock, display minimums, and pending orders to optimize order plans.



Optimizing Multi-Echelon Inventory

The previous approach of using multiple sheets and systems for order management at different supply chain nodes was ineffective and cumbersome. With Order Right, the client moved to centralized multi-echelon inventory management across stores, warehouses, and stocking points.



Effortlessly Leveraging Retail Data

Order Right's robust demand forecasting framework helped demand planners circumvent data challenges such as sparse data, noisy data, outliers, and new product introductions effortlessly with custom retail-tuned algorithms. This significantly reduced the efforts required by the team to get quality data.

BUSINESS VALUE DELIVERED

Algonomy's Order Right helped the client transform from static and inefficient to ultra-granular and intelligent replenishment. As a result, the client witnessed a host of benefits including:

63%

Reduction in Out-of-Stock Instances

\$ 1.5 Million

Inventory Cost Savings

17%

Reduction in Inventory Costs

\$ 250k

Annual Reduction in Loss of Sales

ALGONOMY

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