VERDIS°

Achieving allocation accuracy in the range of **15-25%** with Replenishment Allocation Planning



Problem Statement:

Enterprises struggle with maintaining optimal inventory day in and day out. You plan for too much, you tie up your capital, labour, and space, not to mention, that you run a high risk of wastage, especially for limited shelf-life products. You plan too little and you may face stock-outs and a high loss of sales. Striking a balance between overstocks and out-of-stocks while minimising inventory losses is therefore very crucial.

Replenishing inventories in the due course of time requires real-time visibility over the entire network of suppliers and distributors alongside handling the complexities of multiple decision variables, rules and processes. The complexity ought to be handled in a cost-optimised way so that the total cost of inventory and penalty for unmet demand is minimum while, simultaneously maximising service levels.

Here's an overview of the multidimensional complexity driving the replenishment environment.

- Multiple suppliers and dealers
- Multiple Central and Regional Warehouses
- Multiple SKUs
- Multimodal transportation
- Multimodal fleet configuration
- Inventory Rules Safety stock, MOQ, Min, Max inv
- Cost Rules Handling, Holding, Storage, Shipping Cost

- Resource availability SKUs, Fleet, Manpower, Equipment, Storage space, time/Lead time
- Capacity Constraints Procurement,
- Manufacturing, Storage, shipment
- Dynamicity due to external & internal factors like weather impacting lead time, demand, etc.
- Offer allocations





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The VERDIS Approach:

Input

Process

Output

Master Input:

Site, SKU, Date/Time, Cost, Inventory, Lead Time, Shipment Link, Transport master, distance, carry flag, configuration

User Input:

Demand, opening stock, carry quantity flag

Constraints

Total transportation cost, total cost for handling inventory, total cost for holding inventory & etc.



VERDIS' collaborative abilities allow it to integrate with demand forecasting and strategically schedule inventory replenishment plans that are responsive to the market changes and uncertainties. The VERDIS Digital Mind's Replenishment Allocation Planning (RAP) use case takes into account the multifaceted complexity of the environment to optimise inventory and fulfill the demand at each node, across the Supply chain network while maximising sales and customer service.

Fully Optimized Automated Replenishment Allocation Plan

(Stock analysis, transport analysis, vehicle master, other information)

Value Creation

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Reduced Inventory in the range of

2-8%

Increased allocation accuracy in the range of

15-25%



To know more: https://www.verdis.ai/ Ask for a free demo: teamverdis@verdis.ai

