

Reduction of Cost & Complexity in Supply Chain by Optimization of Distribution Centers



SITUATION

To analyze change in the product flow in network post closure of its distribution centers.

IMPACT

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RESOLUTION

Built an end-to-end supply chain from suppliers to end-customers using Llamasoft Supply Chain Guru that considered different cost and constraints. Analyzed different what-if scenarios to understand trade-offs between service level and cost.

The Customer

The customer is Fortune 100 company that invents and manufactures products to keep precious assets safe at work, at home, in air and during an emergency.



The Need

The client has a complex supply chain with global sourcing, manufacturing, 10K plus SKUs and a strong customer base. Different channels for selling via retail and industrial were adding complexity to the distribution network. Having decided to consolidate the distribution centers in the east coast, the business wanted to understand how to re-align customers to the distribution centers and what products need to be stocked at each of the distribution centers.

The Solution

LLamasoft Supply Chain Guru was used to build the complex supply chain, where multiple cost factors related to transportation, production and sourcing were modeled.

To reduce the complexity of the model, all products and customers were aggregated based on product hierarchy: Product Family, Product Line, Product Weight & Product UOM.

The aggregation of customer was based on sales quantity, channel and Zip3 code. Different business scenarios were evaluated to understand the impact on supply chain network cost.

Scenarios related to maximum service distance from DCs to customers, increasing the capacity of distribution center, evaluating a new DC at a different location and impact of aligning the customer to one of the two DCs in the network were evaluated.

Modeling and analyzing different scenarios helped the client make better decisions relating to product flow in the supply chain, assignment of customers to DCs based on two DC scenarios, estimating the size of DCs and products to be stocked at each of the DCs.

Business Benefits

- Transportation cost reduced by 1% due to consolidation of its distribution centre
- Increased inventory turn due to stocking point consolidation and deciding on the right DC to hold inventory for a product
- Decreased delivery service time by 20% compared to the baseline scenario
- Reduced order management complexity and improved delivery performance for its customer by assigning customer to one DCs
- Helped the client efficiently manage capacity scaling plan for DCs estimating capacity required for the DCs

About ITC Infotech Business Consulting Group

The Business Consulting Group (BCG) at ITC Infotech is a converging point for business & IT solutions. We aim to transform business performance, bringing a strategic perspective on process improvement and IT enablement. Our team blends domain experts and consultants, bringing unique capabilities to discover and resolve business concerns of the day.

Our expertise spans Consumer Goods, Retail, Process Industry, Logistics & Transportation, across key business functions such as product development, production, supply chain management, sales and marketing management, field force management, and customer relationship management.

For more information, please write to:

contact.us@itcinfotech.com

www.itcinfotech.com