

Post-Merger Supply Network Rationalization and Cost Analysis of Managing Supply Chain Risk



Challenge

Following the acquisition of another match manufacturer, the leading safety match manufacturer in India wanted to rationalize the combined organization's contract manufacturing base and identify the optimal product mix for each.

The company had also identified a number of region-specific contract manufacturers as part of its risk mitigation strategy and wanted to understand the financial impact of this.

LLamasoft provides a framework for reducing complexity and cost in contract manufacturer heavy network.

Solution

A medium-term network optimization model was built using LLamasoft technology, with monthly buckets considering all cost elements of supply, production and logistics coupled with inherent supply chain constraints and complex and varying tax structure by region. The solution also incorporated complexities related to supplier capacity constraints, procurement contracts, production constraints, product mix constraints, inventory policies, truck load constraints, transportation policies and desired service levels. The solution helped the company to identify the optimal supply chain network, including:



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Scenarios related to the risk mitigation plan were then modeled to help the customer quantify the financial impact of its risk mitigation strategy.

Results

The solution provided a framework which helped the company reduce network complexity and identify cost and other benefits, including:

- Identify right product mix for each contract manufacturer to help reduce distribution, raw material and packaging material sourcing costs
- Firm distribution network to the tune of 90 percent and keep 10 percent flexible with two supply options to adapt to market dynamics without violating supply constraints
- Identify the increase in supply chain cost due to risk mitigation strategy and which contract manufacturers contributed most to this cost. This helped the customer to devise a strategy for renegotiating cost and/or finding alternate contract manufacturers in the region
- Reduction in month-on-month production and procurement requirement deviations
- Visibility into dispatch plan to more efficiently plan truck requirements with logistic providers
- More visibility into the business for negotiating contracts with contract manufacturers and logistics providers and for determining required space at manufacturing premises for raw material and finished goods storage

