

# Network Optimization Model for a Flexible Supply Chain



## SITUATION

The customer needed a flexible and adaptive supply chain network.

## IMPACT

The existing supply chain network was not cost effective and did not adapt to market volatility.

## RESOLUTION

We devised an optimized network model built on Llamasoft Supply Chain Guru that considered end-to-end cost and incorporated all data elements and constraints.

## The Customer

The customer is a leading incense & safety matches product manufacturer in India managing the marketing, sales and distribution of products across the country. Contract manufacturers that plan for raw material procurement based on customer's demand and supply govern their production process.



## The Need

Due to the nature and use of the product in the country, the incense business experiences inconsistent demands that lead to frequent changes in its production, planning and distribution scheduling. Since contract manufacturers managed production processes, any change in planning and scheduling had a high impact on the manufacturer's framework, leading to sub-optimal network utilization. Hence, the customer required a fixed, cost efficient supply chain network that would adapt to market volatility.

## The Solution

ITC Infotech's expert consultants provided a successful solution model that helped the customer decide a supply chain framework with end-to-end network cost visibility. We decided upon an optimized network model after considering all the cost elements of supply, production and logistics coupled with inherent value chain constraints, credit rules and the complex tax structure in India. The model was built on LLamasoft Supply Chain Guru that enabled incorporation of all data elements and constraints. It included complexities related to supplier capacity constraints, procurement contracts, multi BOM scenario, production activity wise capacity constraints, product mix constraints, inventory policies, truckload constraints, serviceability factors and transportation policies.

## Business Benefits

- Production mix with 85% firm and 15% flexible based on market exceptions
- Firm distribution network to the tune of 90% and 10% flexible network
- Increase of direct delivery to regional warehouses from 29% to 50%
- Reduction in outbound transportation cost by 25%
- Overall cost saving suggested to the tune of 2.5%

- Defined pre build inventory strategy
- Reduction in monthly production & procurement requirement deviations
- Reduction in inventory write-off of the raw material at manufacturing premises
- Less variations in production planning lead to more visibility of dispatch planning from manufacturing premises
- More visibility to the business for negotiating contracts with contract manufacturer, logistics providers etc
- More visibility of space required at manufacturing premises for raw material and finished goods
- Better production adherence concerning the demand plan

### 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.

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