

Network Optimization Reduces Annual Supply Chain Costs by US\$ 400,000 at an Adhesive Technologies & Packaging Materials Company



SITUATION

The customer had a complex supply chain with multiple costs and constraints for which intuitive local optimization was not a solution. The different countries in the region had different product specific tax structure while the company itself had multiple manufacturing plants and distribution centers. The company's plan of capacity augmentation added to the supply chain complexity

IMPACT

The network was not the best supply chain for the organization, leading to sub optimality in the network

RESOLUTION

An end to end supply chain optimization with an automation layer was performed. This enabled business teams to run it frequently. A framework was developed through which the various heads under manufacturing costs were categorized into fixed or variable cost to arrive at true variable cost. This helped to identify the total cost of manufacturing and to arrive at the optimal solution

The Customer

The customer is a US based leading adhesive technologies and packaging materials company. The company's products include pressure-sensitive materials for labels and graphic applications; tapes and other bonding solutions for industrial, medical and retail applications; tags, labels and embellishments for apparel; and radio frequency identification (RFID) solutions.

The products find wide use in the manufacture of adhesive tapes, labels, decals, graphics, laminations and holograms. The company also manufactures rubber and acrylic solvent based adhesives, specially formulated to the individual requirements of the converting industry.



The Need

The ASEAN business region comprising Thailand, Malaysia, Vietnam, Indonesia, Singapore and Philippines was faced with many challenges in their supply chain. The different countries in the region had different product specific tax structure while the company itself had multiple manufacturing plants and distribution centers. Complex trade offs were involved since there were various costs, both fixed and variable, had to be considered. The company's plan of capacity augmentation added to the supply chain complexity.

The company wanted an optimization exercise was to overcome these challenges and had the following objectives:

- Create a 18 months' supply chain plan for optimum cost and service
- Prepare sensitivity analysis around commissioning of the new machine
- Develop an automation engine for repeated use

The Solution

The customer approached ITC Infotech to provide the most optimum solution for the organization which considered all the fixed and variable costs in the system to optimize the end to end supply chain.

A framework was developed through which the various heads under manufacturing costs were categorized into fixed or variable cost to arrive at true variable cost. This helped to identify the total cost of manufacturing and to arrive at the optimal solution.

Different sensitivity scenarios were considered as were scenarios around alternate networks so that the business could be prepared for various possibilities. This was not as a onetime exercise, but as a continuous process for which an automation engine was built to aid in building and running the model quickly, with the structure of the model remaining same.

Business Benefits

- Reduction of supply chain costs by US\$ 400,000 per year through end to end optimization
- Quantified risk assessment of delay in commissioning of a new asset with multiple what-if scenarios
- Enabled the running of the optimization model on a frequent basis, thereby keeping the network optimized
- Provided an avenue to evaluate multiple business scenarios on the go

ITC Infotech's Business Consulting Practice

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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