

# ITC Infotech Enables US\$40 Million Capex Decision with Optimization Model for Leading Pressure Sensitive Adhesives Manufacturing Company



## SITUATION

The customer was planning a significant investment. However they faced difficulties due to multiple locations and types of possible investments. The customer needed a solution that would suggest capacity addition plans for the next 15 years, keeping in mind the demand situation. They also needed to build a business case for the recommendation, considering different alternates and their cost impact

## IMPACT

The existing sub optimal decision making impacted their cost as well as service to the market. This affected their standing in the market over the years

## RESOLUTION

An optimization model was developed with multiple what if scenarios to identify and justify the investment to be made. The project considered many what-if scenarios for alternate business models to identify the risks in each business model and the associated costs

## The Customer

The customer is a US based leading pressure sensitive adhesives manufacturing 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 customer's South Asia Pacific and Sub Saharan Africa (SAPSSA) business region (comprising India, Australia, New Zealand, Africa, Thailand, Malaysia, Vietnam, Indonesia, Singapore and Philippines) had business complexities that affected the operations.

### They included:

- Multiple potential locations for capacity addition
- Multiple types of machines with varying capacity, capability and investment

Any business decision taken in this context would impact the company operations for the next 10-15 years, and therefore these issues were extremely critical. The customer needed a solution that would suggest capacity addition plans for the next 15 years, keeping in mind the demand situation. They also needed to build a business case for the recommendation, considering different alternates and their cost impact.

## The Solution

The customer wanted ITC Infotech to undertake the project given its strategic nature. ITC Infotech began by understanding the strategic imperatives of the organization and the modeling was done at product and customer clusters rather than individual products and customers. This helped in reducing the model complexity, model run time, without compromising the quality of solution delivered. They considered various factors like product physical characteristics, end use, technology, suppliers, cost, etc for clustering different products.

They identified various capacity addition plans in terms of location and type of machine followed by a detailed project costing activity to arrive at the investment for each alternate option and the variable costs in each of them. The model for the end to end supply chain considered all the other costs in the system like raw material (RM) cost, freight, duties, operating costs (fixed and variable) and inventory carrying costs.

The project considered many what-if scenarios for alternate business models to identify the risks in each business model and the associated costs. A model, built initially for 10 years, was extended to 15 years to make sure the recommendation did not change with change in horizon. A sensitivity analysis on demand as well as cost was carried out to ensure that there is no change in the solution with minor changes in these parameters.

A time phased capacity addition plan was made, considering the overall impact on investment, cash flow, inventory and other operating costs as well as subjective elements like ease of doing business and availability of skilled labor. This was done after a thorough evaluation of all the possible alternatives and the sensitivity analysis and a robust solution was provided after evaluating various what-if scenarios and their impact.

## Business Benefits

### The solution provided by ITC Infotech provided the following benefits:

- Enabled Capex decision worth about US\$40 Million for a period of 15 years
- Helped in the selection of location to invest
- Provided a time-phased result of when the investment is required
- Enabled a decision on type and capacity of asset required

### 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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