



Client Case Study: Supply Chain Division of Global Engine Manufacturer

Enhancing
Capacity &
Delivery
Performance

Background

- Our Client was a supply chain division of a global Engine manufacturer with their supply base spanned across EU,UK and Asia. The Client was experiencing rapid increase in sales growth with projected volume increase of 20% in one year and over 50% in three years
- Increasing demand in Asia by over 200% in three years required that capacity be shifted to the local regions
- Facing this steep growth plan, the Client's primary business objective was to develop a business case by supplier by product series detailing the implications of these new demand requirements, determining the necessary resource, costs/investments and developing a roadmap by supplier for fulfilling the demand requirements
- Client wants to deploy a sustainable capacity management framework that would allow a streamlined capacity ramp up and capacity management across the global facilities

Business Challenge/Objectives

- The speed of change in market place has created a stressed multiconstrained supply base that operated on surge capacity. This resulted in poor schedule adherence and high expediting costs for both client and their supply base.
- The high product mix of the client's products contributed to the complexity of the situation and it was difficult for the client to quantify the financial impact of capacity on their business
- In cases where the new demand exceeds supply of parts for the short and medium term, a comprehensive business plan for upliftment of capacity was required to maintain/increase profitability
- Develop a robust automated capacity model tool, that will enable the client visibility into gaps by supplier (Heat Maps) and a sustainable production run rate by Product Series
- Provide Demand and Order a weekly run rate by product mix, utilizing sustainable capacity at supply base

Approach/Methodology

CGN deployed its sustainable capacity management framework to meet client objectives

- Strategic Planning
 - Collated supplier sustainable/surge capacity levels for all critical suppliers. Based on the demand levels, identified capacity gaps with supply base. Conducted workshops by collaborating with pertinent stakeholders and developed a comprehensive business plan to meet client's forecasted demand levels. Evaluated what-if scenarios to arrive at a cost effective solution to uplift supply base capacity
- Automated Capacity Model
 - Developed data structures with parts, supplier, product, BOM, product series, product mix, consumption facility, demand levels, and value stream capacity. Established data relationships with one another and developed algorithms to dynamically generate supplier capacity gap, product loss, and product run at rate capacity reports.
- Governance & Action Plan Management –
 - Implemented a project management office that is in line with CGN best practices. Facilitated governance process, and enabled an effective streamlined action plan management via detailed project plans, dashboards and escalation process across client's multi-functional organization

Business Performance Improved

- Improved top-line revenues (25%) and bottom-line profitability (>50%)
- Mitigation plans have been deployed for all multi-constrained suppliers, resulting in supply base capacity increase of 20%
- Reduced efforts to perform RCCP process drastically by more than 95% by implementing the automated capacity model
- Clear visibility to demand and orders team on the supply base capacity by product mix has facilitated yield management activities, resulting in improving capacity for certain key product series, that were critical for client's financial growth

Background

- Our Client was a purchasing division of a global tractor manufacturer with markets spanning across several countries and regions. The Client was experiencing rapid market and sales growth with projected volume increase of 40% annually
- Facing this steep growth plan, the Client's primary business objective was to ensure an actionable framework that would prevent any reduction in sales revenue due to inadequate supply volume. Another business imperative was to provide focus on high dependency relationships and core capabilities in a rapidly expanding supply base.
- Company leadership wanted to develop a sourcing footprint that would deliver required capacity at lower cost, through a streamlined and sustainable capacity management process, while securing capacity by volume and model mix
- Goal: Achieve 90% weekly delivery performance to facilitate synchronous flow and meet product availability targets

Business Challenge/Objectives

- Client was having difficulty in assessing their suppliers' capacity and meeting the projected growth
- Our Client was experiencing inconsistent delivery with its suppliers despite supplier commitments to invest in additional capacity. Delivery performance was ~ 60% on a weekly basis and ~ 80% on a monthly basis
- The Client experienced constant build schedule changes based on parts availability, resulting in large amount of time (cost) spent on delivery and expediting requirements
- An inventory plan for parts and replenishment strategy were not in place and needed to accommodate variability in demand

Approach/Methodology

CGN deployed four different work streams to meet the objectives - Capacity Assessment, Supply Chain Analysis, Delivery Performance Assessment, and Relationship Assessment.

- In-depth Capacity Assessments were conducted at the supplier site by determining actual and theoretical capacity for machines/ facilities. Identified capacity gaps and developed risk mitigation plans to meet the Client's forecasted demand through use of consensus workshop sessions
- Identified and eliminated waste across the value chain resulting in increased capacity, without adding machines/facilities or major investments
- Identified root causes at the parts level to build recommendations to address poor delivery performance and capacity short falls. Thorough understanding developed via in-depth analysis of information flow, capacity planning process, demand volatility, supplier manufacturing inefficiencies, and communications supporting shared metrics between supplier and Client
- Relationship status was assessed through a structured interview process and opportunities were identified to establish a win-win relationship with critical suppliers

Business Performance Improved

- Mitigation plans and formal capacity agreements have been made between the Client and their suppliers to ensure capacity is secured and volume forecasts will be met in the short and medium terms
- Additional capacity of 50% has been created with all the critical suppliers through new machine investment plans, implementable process improvements, bridging relationship gaps and by improved communications with suppliers
- Achieved a 90% weekly delivery performance by implementing the sustainable capacity management framework and implementation roadmaps for the suppliers