

How an integrated product development firm from the pharma sector slashed manufacturing lead times as well as stock-outs and back orders, while simultaneously augmenting output.

TOC CASE STUDY

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THE CLIENT

An integrated product development firm, the company has core interests in Pharmaceutical Service and Active Ingredients, Global Generics and Proprietary Products.

TOC SOLUTION IMPLEMENTED

Goldratt Consulting drove TOC implementations in Supply Chain and Research and Development.

Supply Chain Implementation

- Shift from 'Push' to 'Pull' - Fulfill actual demand
- Implement Procurement, Production & Distribution mode of operations
- 'Pull' mode of operations
 - What, When, and How Much to produce, procure, distribute
 - Where to stock FG
 - Constraint Management

Research and Development Implementation

- GC drove new changes based on TOC principles in Product Development, Planning, and Execution, with measurements aligned to CCPM principles
- Refined process to manage new product development
- Established a project management system that effectively introduced more new products (generics and APIs) in the market - faster, and at lower costs.

AT A GLANCE

Business Challenges

- Inconsistent reliability on supply chain
 - Batching of production orders
 - High WIP on shop floor
 - Orders stuck on shop floor for various reasons
 - Gap between installed and demonstrated capacity
 - Customer backorders
 - Shortages and Surplus downstream
 - Cost of expediting (air freight), cross shipments
- Supply chain planning based on forecast provided by Sales
- Research and Development
 - Many projects missing due dates
 - High Cycle Times
 - Inconsistent throughput and skewed to the end of the financial year (Hockey Stick Syndrome)
 - Lack of process to assess the capacity of R&D
 - Stressed out resources due to missing due dates

TOC Implementation Results

- Reduction in Manufacturing lead times
- Reduced stock-outs and backorders
- Improvement in Cycle Times and Fillings across verticals
- Robust improvement in Due Date Performance across verticals

IMPLEMENTATION RESULTS

Supply Chain	Research and Development
<p>For the Company</p> <ul style="list-style-type: none"> • Reduction in manufacturing lead time of Finished Formulations and APIs Increase in output across manufacturing plants • Reduction in stock-outs and backorders <p>For Customers</p> <ul style="list-style-type: none"> • Increase in inventory turns and better availability 	<ul style="list-style-type: none"> • Cycle time <ul style="list-style-type: none"> ◦ Vertical 1: Reduction from 800 to 450, a 44% Decrease ◦ Vertical 2: Reduction from 700 to 500, a 28% Decrease ◦ Vertical 3: Reduction from 450 to 350, a 22% decrease • Fillings <ul style="list-style-type: none"> ◦ Vertical 1: Increased from 20 to 36, an 80% Increase ◦ Vertical 2: Increased from 10 to 35, a 250% Increase ◦ Vertical 3: Increased from 20 to 25, a 25% Increase • Due-date-performance <ul style="list-style-type: none"> ◦ Vertical 1: Increased from 30% to 60%, a 100% lift ◦ Vertical 2: Increased from 35% to 78%, a 120% lift ◦ Increase Vertical 3: Increased from 60% to 80%, a 33% lift