CASE STUDY

Tying Inventory Levels to Customer Demand

Client
A $3 billion U.S. manufacturer and marketer of household and personal care products.

Challenge
Reduce demand volatility driven by seasonal fluctuations and decrease inventory levels in order to leverage current assets to support future growth.

Solution
Client's team of managers and TBM Consulting Group analyse demand patterns to optimise inventory levels, align production with customer demand and reconfigure packaging.

Results
The business unit immediately eliminated $1 million in inventory for a single product line, doubling annual inventory turns from 3.0 to 6.2 in the initial phase alone. Ultimately, inventory turns will increase to almost 11.

A Multi-billion Dollar Household Products Manufacturer Leverages Lean to Eliminate Seasonal Inventory Surges—Freeing Up Over $1 Million in Working Capital.

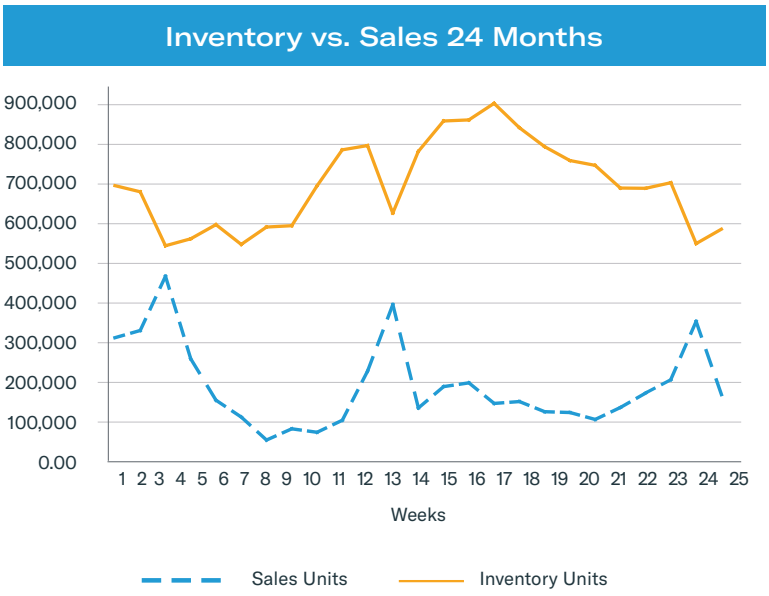
Company executives set a long-term goal to triple sales in the lighting segment. To do that with their current fulfilment processes would require an additional $30 to $100 million dollars in finished goods inventory and another million square feet in warehousing space. That was unacceptable.

One of the company's best-selling products in this segment is a light for boating and emergency situations. Marketed for hurricane preparation in the spring and summer, demand followed a somewhat seasonal pattern. But despite having an efficient production process, they were only achieving three inventory turns per year.

The problem was in the distribution network. The company stored several months of inventory in four regional distribution centres, plus two additional hurricane warehouse locations. One of its largest retail customers, which accounted for over 50% of the sales volume for the product, also had warehouses all over the country and its own dedicated facilities for hurricane-related items. It was carrying 13 weeks of inventory as well. To improve the flow of goods through this extended value chain, the company engaged TBM Consulting Group. TBM pulled together a cross-departmental team to take a closer look at customer demand and come up with a better inventory management strategy.

Prepared for the Worst and Then Some— Making the Value Chain Transparent

As illustrated in the chart below, inventory and sales trends were never aligned. Inventory levels never fell below 500,000 units even in the worst hurricane season.



One of the big "Aha" moments for the team came when they overlaid four data elements:

1. Point-of-sale data from their largest customer
2. Historical inventory levels
3. Shipment records and 4) production volumes.

A detailed inventory analysis revealed that actual customer demand at the retail level over the course of the year was fairly stable. The manufacturer was building additional inventory to accommodate fluctuations in shipments caused by special tax-holiday shopping events and in advance of the oncoming storm season. They also realised that it was unnecessary to hold anywhere near the amount of inventory that they had been targeting.

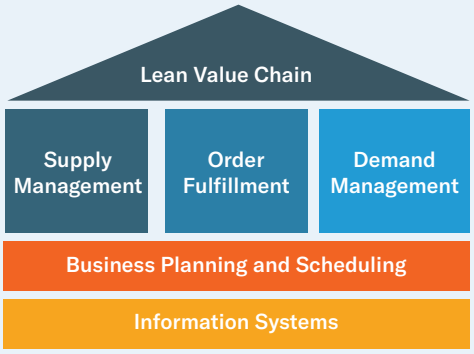
Optimising All the Links in the Value Chain

What should you do after you've established a clear material flow, dramatically reduced setup times and squeezed every ounce of waste out of the production process? It's time to take a look at the broader value chain.

The team found that they could reduce inventory from $1.8 million to $500,000, tripling turnover to almost 11 turns per year, and still achieve the current 99.3% fill rate.

Lean Value Chain

Managers now understand the benefits of having inventory levels tied to customer demand, and they know how to manage the risks. The company will achieve further inventory reductions and the ability to support future sales growth, as it rolls out these practises to other business units and product lines.



To determine more appropriate inventory levels the team developed a simulation tool that allowed managers to test different inventory levels with each SKU. (See Fig. 1)

To ensure that the product would still be available during peak demand periods, the improvement team also established a weekly meeting during the hurricane season.

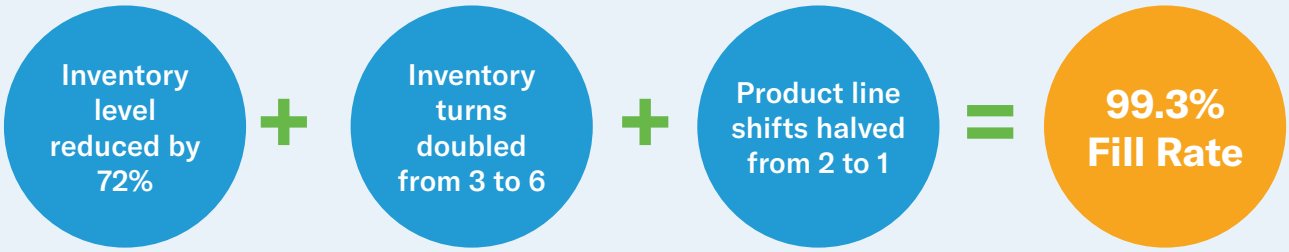
Pulling together managers from sales, marketing and operations, they discussed whether they needed to increase or decrease production. If the team needed to boost output, operations established a process for bringing in and training temporary labour so that they could gradually ramp up production by 10,000 units per day.

Trust the Numbers

This consumer goods company has begun its journey toward a Lean Value Chain by focusing on demand management. It's now using point-of-sale data to set appropriate inventory levels. Regular S&OP meetings are speeding communication and aligning market intelligence with production. Packaging configurations are being reviewed with customers to determine what's best for both the retail shelf and the overall value chain.

FIGURE 1

Initial Phase of The Plan Yielded



Speed wins every time.

TBM specialises in operations and supply chain consulting for manufacturers and distributors. We accelerate operational performance to make you more agile and help you accelerate business performance 3–5x faster than your peers.

tbmcg.co.uk

Follow us

42 - 44 Nottingham Road
Mansfield, NG18 1BL, UK
O: Central Europe: +351 918 168 607
O: Poland +48.605.202.885