Analytics' Forecasting Boosts Value of Medical Device Manufacturer

The Business

This client is a leading medical device manufacturer. The company produces both the devices themselves as well as the instruments and associated materials and accessories used by doctors. The company produces 2,200 different products. Domestically, it sells its products directly to individual doctors and practices; internationally, the company sends its products to distributors, subsidiaries, and affiliates. Orders placed at headquarters by subsidiaries and affiliates generate the company's international demand data.

In 1994, the company brought in a private equity firm to provide capital in exchange for a small percentage of the company. This gave the company the operating capital it needed to begin a rapid expansion program. Since then, company revenues increased steadily at approximately 20% per year.

The Problem

As time passed, however, the equity firm grew nervous. It had been in the investment almost six years and it would soon be time to exit. Two disturbing trends were developing: inventories were down to 3 turns and back orders exceeded $1 million. In other words, costs were increasing while customer satisfaction was decreasing. The equity firm realized an improvement in financial performance would be required if investors were to achieve their goals.

Analytics was asked to identify causes. Among them:

- Individual forecasting of 1,600 SKUs using homegrown, oversensitive algorithms
- Poor scheduling and lot sizing leading to large swings in production and lead times
- Arbitrary assignment of safety stock

Analytics' Solution

Analytics rebuilt the company's forecasting system by using exponential smoothing techniques, and by aggregating products into product families. In addition, Analytics also determined appropriate safety stocks based on a quantitative analysis of system variability.

The Analytics Difference

Analytics was fully knowledgeable in, and could appropriately apply, the advanced quantitative techniques that were best suited to solving the manufacturer's problem. As a result of Analytics' intervention, the manufacturer's financial performance significantly improved and the private equity firm achieved its investment goals.

Business Impact

Backorders cut 95% and inventory reduced 25%

As a result of Analytics' intervention, the private equity firm achieved its investment goals. Operational improvements included a $5 million reduction in finished goods inventory and a 95% reduction in backorders.

"I have worked with a huge number of consultants, and Analytics has been by far the best. Not only did the cost reductions pay for Analytics' fees in a matter of months, but our operations are running more smoothly than ever before."

– VP Manufacturing

"These improvements increased the value of our investment by at least 10 times Analytics' fees. In addition, the company's improved performance made it easier to sell. It was a real pleasure to work with a firm that consistently delivered on its promises, and did not make waves with portfolio company management."

– Private Equity Managing Director