Success Stories

Reduce Variability and Costs Following Demand Analysis

Challenge

The success of a branded pharmaceutical business hinged on the performance of a single, established product line. Product demand was seasonal, with nearly 40% of customer demand occurring during one quarter each year. Despite the importance of the product line, management did not have clear understanding of the key business drivers for the product.

Supply chain considerations complicated the business. The product was manufactured by a third party, who required over three months between order and delivery. The business routinely received product that would expire in less than 18 months before expiry and had to ensure than patients received the product with at least 12 months remaining before expiry. As the product had to pass from the business' distribution center to wholesalers then retail outlets before finally reaching the patient, the business needed accurate forecasting of demand and wholesaler purchasing patterns. Frequently, wholesalers and retailers returned product because their inventory did not meet the 12 month expiry requirement. As a result, the business had to destroy returned product, leading to inventory write-downs and negative effects on financial results.

Actions

A fresh analytical perspective helped identify critical business drivers. Examination of retail product demand on a weekly basis rather than a monthly basis revealed a very consistent annual pattern. Critical inflection points occurred during the week of July 4th (treated as either June or July, depending on the year) and the week before Labor Day (included as August some years and September during others). These subtle timing differences complicated prior analyses of monthly demand values and obscured the clear correlation between time and demand.

Examination of underutilized customer data provided additional insights on sales trends. Existing contracts gave the business access to wholesaler inventory and sales out data. However, these values had not been incorporated into the forecasting model and thereby treated as unknown.

Using newly discovered business driver analysis, a new forecasting model was created. The weekly perspective in the model gave management greater visibility on the status of the business and a more meaningful basis for comparison to prior year trends.

Results

Using the new forecast model, variances between projected and actual performance decreased. This improvement reduced uncertainty in the earnings and cash flow forecast. The level of product returns and their negative financial consequences also decreased. Additionally, the improved accuracy of the sales volume forecast allowed the Operations group to lower its DIOH targets for internal inventory, leading to significant working capital savings.

This study also benefited external stakeholders. The Managed Markets group shared this analysis with wholesale customers, who accounted for over 80% of factory purchases. Incorporating the study results into their inventory management systems and communicating key trends to retail customers allowed the wholesalers to bring further efficiencies to the product supply chain.

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