THE POWER TO KNOW®

How can finance and operations work together to maximize inventory provisions while minimizing working capital costs?

Business Impact

For every $100 million in sales, an improvement from four to six inventory turns yields $6 million in cash; from six to eight turns releases $4 million; and from eight to 10 frees up roughly $2 million.*

Challenges

- **Inaccurate forecasting.** Inaccurate forecasts result in costly overstocks or stock-outs that can erode customer satisfaction.
- **Low inventory turnover.** Low inventory turnover means higher storage costs, higher interest expense and scarce cash tied up in unproductive working capital.
- **Long cash-to-cash cycle times.** Cycle times that are too long tie up cash otherwise needed for marketing, development and capital investment.
- **Inadequate systems.** Many companies use time-consuming, resource-intensive solutions driven by domain knowledge and biased judgment, with little emphasis on analytics, resulting in inaccurate forecasts.
- **Pessimism over long-term results.** Quick-fix approaches to inventory control often leave management concerned that customers and revenue streams may be negatively affected and without the confidence that changes will be a permanent component of their processes, forecasts and cash on hand.

* Assumes a 65 percent cost of goods sold and 35 percent gross margin; payoff could be larger if gross margins are lower.

YOUR GOAL: Reduce working capital while meeting customer requirements.

Preserving cash and minimizing debt are top priorities under any economic conditions. With margins and operating cash flows being squeezed, the next most promising source of potential cash is working capital. Most companies have already been keeping tight reigns on working capital and can't imagine being able to squeeze more out of payables or receivables. There is one component of working capital, however, where there's likely still considerable room for improvement – inventory.

Industry studies show that better demand forecast accuracy can result in 15 percent lower inventories, 17 percent stronger perfect-order fulfillment and 35 percent shorter cash-to-cash cycle times. Industry stalwarts know that accurate forecasts lead not only to higher customer satisfaction and increased revenues, but more importantly to lower inventories and lower working capital – which means greater available cash.

OUR APPROACH

Getting to optimal inventory levels is no easy task. It requires taking full advantage of customer demand and other upstream data to generate the most accurate, unbiased forecasts at all levels of product hierarchy. SAS approaches the problem by delivering software and services to help you:

- **Get data that is correct, complete and available when you need it** with data management tools that can access data from any system in any format, then automatically transform and cleanse the data to get it ready for analysis.
- **Generate accurate, demand-driven forecasts at any hierarchical level** with a patented forecasting engine and flexible data modeling capabilities that ensure you're using the right methods and models.
- **Determine optimal demand-shaping actions** using advanced analytics via a user-friendly interface that lets you test various scenarios and conduct what-if analyses to gauge the financial impact of changes in your marketing or product mix.
- **Measure forecast performance against KPIs** with an interactive dashboard that lets you monitor, track, report and surface alerts on forecast performance metrics.
- **Proactively drive S&OP processes** with an advanced consensus forecasting planner workbench that delivers automated, statistically driven, weighted consensus forecasts and workflows that facilitate the consensus forecasting process.
- **Share information companywide** via a self-service Web interface that lets users interact with and drill down through reports as needed.

SAS provides advanced forecasting technology and processes that can enhance your S&OP processes and address related challenges for greatly improved demand and supply alignment.

THE SAS® DIFFERENCE: Advanced analytics for superior demand forecasting

No other vendor offers event modeling that has as much depth and breadth for predicting incremental lifts in sales volume associated with sales promotions, marketing events and activities, and other irregular events that affect sales demand. SAS is the leader in advanced analytics, providing you with:

- **A statistical forecasting engine** that automatically creates a business/product hierarchy on the fly and assesses every level of the hierarchy to determine the appropriate statistical model, inclusive of input for causal factors and POS data.
- **The most scalable statistical forecasting available**, enabling you to run in batch mode or through a GUI.
- **A model repository and custom algorithms** for forecasting within a hierarchy, with support for *all* model families (time series, ARIMA, regression, ARIMAX, intermittent demand function and UCM), infinite methods and personalized algorithms.
- **What-if analysis and scenario modeling** for understanding the financial impact of changes in product mix and marketing strategies so that you can respond proactively to changing demand signals.

Only SAS can deliver a demand-forecasting solution that enables **permanent improvements in inventory turns** that you can rely on for future plans and budgets.

CASE STUDY: One of Asia's largest beverage companies

Situation

Producing and distributing the right quantity and mix of beverages to meet consumer demand was challenging. The company's different production plants had been creating their own forecasts using different tools and processes that often relied solely on historical data. The result was high inventory levels, stock-outs and overstocks – and high distribution and redistribution costs.

Solution

SAS provided a solution that enabled the company to combine demand data with the replenishment planning process to:

- Generate sales forecasts.
- Determine production levels.
- Create distribution plans for 100 percent of its products across all locations.

Result

- The company was able to simultaneously lower inventory levels, reduce stock-outs and increase margins.
- Production turns improved by 50 percent.
- Carrying and distribution costs were reduced by replenishing accurately the first time.

The Vision

Superior data integration
What if you could access customer demand data and other upstream data from any system in any format, then automatically transform and cleanse the data to get it ready for analysis?

A patented forecasting engine
What if you could generate accurate, unbiased demand-driven forecasts at any level of product hierarchy that would enable you to eliminate excesses and shortages by stocking the right amount of inventory in the right locations?

Advanced analytics
What if you could test various scenarios so you lower your safety stocks and shorten just-in-time windows – and be confident that they would not come back to bite you later?

Interactive dashboard
What if you could monitor and track forecast performance metrics via an interactive dashboard that would enable you to make any necessary changes in time to actually make a difference?

SAS FACTS

- SAS has been in business since 1976 and today has customers at more than 45,000 sites worldwide.
- SAS customers made up 92 of the top 100 companies on the 2009 FORTUNE Global 500®.
- SAS was named to the 2008 Supply & Demand Chain Executive 100, a list of the leading supply chain solution providers, by *Supply & Demand Chain Executive* magazine.

Learn more about SAS software and services at: www.sas.com

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