



Navigating a Course with Planning and Forecasting

When it comes to S&OP, forecasters and planners need to work together to achieve financial performance targets.

Dr. Lapide is a lecturer at the University of Massachusetts, Boston and an MIT Research Affiliate. He has extensive experience in industry, consulting, business research, and academia as well as a broad range of forecasting, planning, and supply chain experiences. He is the recipient of the inaugural Lifetime Achievement in Business Forecasting & Planning Award from the IBF. He can be reached by email at llapide@mit.edu.

Over the years I have followed a variety of supply chain surveys. A question usually asked is: “What needs to be most improved?” Invariably demand forecasting is always among the top areas mentioned. This answer is wishful thinking on the part of respondents, as there will always be significant demand forecasting errors, as long as customers remain fickle, demand-side managers competitively shape demand, and businesses constantly pursue new business opportunities. Planners should recognize and deal with demand uncertainties using risk management techniques instead of griping about inaccurate forecasts. Indeed, poor financial performance might be the result of poor planning that does not consider uncertainties.

I surmise leaders and planners have always complained of bad forecasts being given to them to plan operations. In the spirit of the Carl Reiner and Mel Brooks comedy skit, “The 2000 Year Old Man,” I could imagine the response of Julius Caesar 2,000 years ago when asked by the media of the time how he could have improved upon his successful military conquests. “Julie” would have said something like this:

“We could have been more successful if our forecasting of the enemy’s manpower and resources were better. We could have conquered more peoples in a shorter amount of time, and with much fewer casualties. Of course, my good generals were smart enough to figure that the forecasting was not perfect, and they would take extra supplies of warriors and armaments to war, just to be safe.”

Meanwhile, my bad generals took the information provided at face value, and skimped on taking manpower and armaments. They experienced more losses and casualties despite taking fewer resources with them than the good generals. Bad generals constantly thought they could get away with blaming their losses on faulty forecasts. I do not accept those excuses knowing that the information provided was the best we could estimate. I constantly replace bad generals, sending them back home to struggle and lead the simple farming and fishing lives they deserve.”

I suspect that if I came back 2,000 years from now and asked managers what can be most improved, forecasting would still top the list. Demand forecasting will always be fraught with significant error.

S&OP Needs Credible Forecasts

A Sales and Operations Planning (S&OP) team is essentially responsible for charting the course of a business to achieve corporate financial targets. Whenever a team detects that the business is off course, it needs to alert the executive team and re-plan operations or reset targets to be more realistic. Because updated baseline demand forecasts are the starting points towards detecting whether or not plans are on course, the forecasts must be credible.

The acid test for a credible forecast is whether the team can consider it “innocent until proven guilty (i.e., wrong),” largely because it represents the best a company can generate. As such, an unbiased and

professionally run forecasting organization is important. Forecasters must be able to defend forecasts against the subjective opinions of naysayers by clearly explaining the facts, figures, and assumptions used. For example, if the sales organization says that a forecast is wrong merely because it does not meet the demand numbers attached to its own plan, that opinion is not sufficient enough to declare a forecast wrong. A sales plan is not a forecast, and sales planners are not necessarily professional forecasters.

Forecasting Supports S&OP

While hearing about untold S&OP implementations, few have mentioned that a forecasting organization was established to support the S&OP team. So I have begun to recommend that all implementations include the installation of a forecast organization to feed the S&OP team with credible, unbiased, and timely baseline demand forecast updates.

Forecasters should provide estimates of forecast errors along with their forecasts. So, for example, if a demand forecast has an error range of 40 percent (not uncommon), and if the actual demand routinely falls within the range of error 100 percent of the time, planners are really getting the best information possible. While the forecast error rate may be considered high, at least they can be confident that demand will fall within the range. (Of course to remain credible, forecasters always need to consistently strive to keep forecast error rates as low as possible).

S&OP Should Use Forecasts

The worst practice an S&OP team can follow is ignoring forecasts and overriding them with budgetary numbers. For example, let's postulate that a team sees that after the first two months of the first quarter (Q1), the revenue forecast is showing that the company is running short of the Q1 budget number by \$10 million. Accordingly, the team overrides the quarterly forecast by adding the shortfall to the quarter's last month. Then (as forecast) the Q1 revenue comes in under the budget by that amount. Then, say that the pattern continues for the next three quarters. Late in Q4, the forecast would now show that the company will have a shortfall of \$40 million for the year. So the team finally admits to the problem that the budget revenue number was too optimistic. Unfortunately it is too late to do anything about it.

Basically this team did not do its job. It knew of the possible shortfall in Q1, yet decided not to do anything about it until it was too late. The company's annual expenses were higher than necessary because they were aligned to the optimistic budget number, and profitability targets were not met. Early on this team should have worked with sales and marketing to mediate the demand shortfall or realign expenses to the more realistic forecast.

Meanwhile, one of the most important best practices that S&OP teams should follow is to leverage risk management tactics that mitigate the risk associated with demand forecast errors. Teams should use the estimates of forecast errors to buffer against the uncertainties in future demand. I discussed some of these in my Insights column, "How Buffers Can Mitigate Risk," in

Now that S&OP has progressed to the point where most companies have implemented the process, teams should not ignore demand forecasts just because they are inaccurate—that's just the nature of the beast.

April 2008. Other ways to mitigate demand uncertainties involve various segmentation schemes (such as by customer, product, and product forecastability) that place greater focus on critically important segments. I discussed these in my column, "Risk and the Planning Process," in October 2009.

The S&OP process was developed by Oliver Wight in the mid-1980s when he essentially recommended to his manufacturing clients that they get sales plans from their sales organizations to use as a basis for production planning. In the early days of S&OP the running joke was that the sales plan was often looked at, ignored, and thrown into the wastepaper can. I'm not surprised, because it is what the sales organization planned to sell and was not a forecast.

Now that S&OP has progressed to the point where most companies have implemented the process, teams should not ignore demand forecasts just because they are inaccurate—that's just the nature of the beast. Forecasts are certainly closer to the truth than wishful sales and unrealistic budgetary plans. In short, forecasters and planners need to work together to help navigate a course towards achieving financial performance targets. ☺☺