

## The Five-Step Process

The essence of Executive S&OP is decision making. For each product family, a decision is made on the basis of recent history, recommendations from middle management, and the executive team's knowledge of business conditions. The decision can be:

- Change the Sales Plan.
- Change the Operations Plan.
- Change the inventory/backlog projection.
- None of the above: the current plans are okay.

These decisions form the authorized plans by the president, all involved vice presidents, and others on the executive team: the overall game plan for Sales, Operations, Finance, and Product Development. (New product plans are reviewed for their needs and their impact on the demand and supply picture.)

Executive S&OP, however, is not a single event that occurs in an Executive meeting each month. Rather, preliminary work begins shortly after month's end and continues for some days, involving middle management and others throughout the company (see Figure 4-1 on the next page). They include:

- updating the Sales Forecast;
- reviewing the impact of changes on the Operations Plan, and determining if adequate capacity and material will be available;



Thanks to the work that's gone before, the monthly Executive meeting should not take a long time – one to two hours is the norm with companies that do this well.

The net result of Executive S&OP for the top management group should be less time in meetings, more productivity in their decision-making processes, enhanced teamwork, and a higher quality of work life. And most of the middle-management people involved in the earlier processes – demand planning, supply planning, Pre-meeting – will experience the same benefits.

Let's take a closer look at each of the steps shown in Figure 4-1.

## **Step 1 – Data Gathering**

Much of this activity occurs shortly after the end of the month. It consists of three elements:

- Updating the files with data from the month just ended – actual sales, production, inventories, and so on.
- Generating information for Sales and Marketing people to use in developing the new forecast. This could include – for volume and, where necessary, mix – sales analysis data, statistical forecast reports, worksheets for field salespeople, and so forth.
- Disseminating this information to the appropriate people.

To make Executive S&OP a timely process overall, it's important that this step be completed within a day or two after the end of the month.

## Step 2 – The Demand Planning Phase

This is where people in Sales and Marketing review the information they received from Step 1, analyze and discuss it, and generate the new management volume forecast for the next 15 or more months. Please keep in mind: this forecast must include both existing products *and* new products.

Let's take a look at some of the factors that go into the development of this updated volume forecast:

- Analysis of last month's variances – actual sales to forecast – at a family or subfamily level
- The new statistical forecast, which includes data from the month just ended
- Field sales input regarding customers, particularly large ones
- Market intelligence from trade publications, surveys, input from the field, and so on
- New product plans
- Promotional plans
- Planned price changes
- Competitive activity
- Industry dynamics

- Economic conditions
- Seasonality
- And possibly some others

It's the job of people in Sales and Marketing to use their knowledge of the business to weight these kinds of factors properly. In some industries, historical data and the statistical forecasts could be more important than the input of customers.<sup>1</sup> In other cases, large customers could be the best indicator of the longer-range future.<sup>2</sup>

Involving the folks in Product Development is important here. They typically have the best handle on timing of new product launches; Sales and Marketing should have already made forecasts, and their forecasts should be reviewed for possible changes. The resulting statements of new product demand must be included here so that the Supply Chain people can make the appropriate plans for pre-production samples, line trials, initial build of pipeline inventory, samples, and so forth. These should include new product launches currently underway plus others expected to be launched within the S&OP planning horizon.

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<sup>1</sup> A word of caution here: If the historical data being used to generate statistical forecasts is shipments to the trade (retailers or distributors), be sure that the point-of-sale (POS) data is not significantly different. It can be quite different, one reason being that some trade customers expand and contract their inventories. In cases such as these, many companies will forecast both demand from the trade and demand from the end consumer to get a clearer picture of what they expect to happen.

<sup>2</sup> Some powerful statistical forecasting routines exist that take into account factors such as economic indicators, consumer attitude, and industry trends. If you're using one of these tools, great; you're a leg up. However, our point here still applies: human judgment by knowledgeable people is central to successful forecasting.

Once the new volume forecast numbers are put together, the job's not quite done. Three things remain:

1. The key assumptions that underlie the forecasts need to be documented. These enable the participants in Executive S&OP to see the assumptions upon which the forecast is based. This can lead to challenges to the forecast, which is certainly a legitimate activity. This in turn gives the forecasters the opportunity to defend the *specifics* of their forecast, rather than having to respond to general comments such as "it's too high."

A second benefit from documenting assumptions is that, after the period is over, it can be very instructive to review the assumptions and the results and perhaps learn why things didn't work out (or maybe why they did). Learning from one's mistakes is, of course, one of the best ways to get better.

2. Convert the unit volume forecast to dollars based on valid assumptions about revenue conversion. It's critical that the dollar version of the updated volume forecast is viewed and its impact on the business plan is understood before that forecast goes further. People from Finance can be very helpful here; many companies have a Finance person on the Demand Planning team.
3. Lastly, the updated volume forecast needs to be reconciled with the sum of the short-term mix forecasts that are usually developed by the salespeople, with their main focus being the customers. This is sometimes a challenging task, but is essential to assure that everybody is on the same page.

The last step in the Demand Planning phase is to “finalize” the numbers through a senior level demand consensus meeting. This is generally a short meeting of senior level Sales and Marketing people to get their buy-in. Its purpose is to:

- Allow them to ask questions, challenge the numbers, challenge the assumptions, and if need be, change some of them.
- Avoid surprises at the Executive meeting.
- Result in a truly “management-authorized forecast,” one that all of the key players have bought into. They’ve signed off on it. This forecast, then, represents Sales and Marketing’s best judgment of future demand volume.

Once this is done, the updated volume forecast is then forwarded to the supply people as an input to Step #3.

### **Step 3 — The Supply (Capacity) Planning Phase**

The newly updated S&OP spreadsheets from Step 2 are the primary input to the Supply Planning phase, which is an Operations responsibility.

Their first step is to modify the Operations Plans for any families or subfamilies that require it. If little or nothing has changed from last month, then there’s probably little reason to change anything. On the other hand, changes in the sales forecast, inventory levels, the size of the order backlog, or over/under supply from the prior month can readily trigger a change to the Operations Plan.

These plans then need to be supported by “capacity checks” on the key resources. This requires a conversion of the volume forecasts into a unit of measure appropriate for the respective resource, most often hours. This is done through simplifying assumptions about run rates and mix. These assumptions should be validated each month with data that comes from Step #1.

Often, some degree of sizing or simulation for the amount of anticipated mix variability is necessary. How much of this that can be done is often dependent on the capability of the software that is being used. Simple spreadsheet software affords a certain amount of this capability, but there are more powerful tools available (see Chapter 8).

Outputs from the Supply Planning step are the updated Operations Plans, related Capacity Planning reports,<sup>3</sup> and a list of any supply problems that cannot be resolved or that require decisions further up the ladder. In some cases, demand (as expressed by the forecast) simply exceeds supply by too great a margin; the constraints cannot be overcome within the time allowable. Sometimes these constraints are within the company's production resources; at other times, constraints may exist elsewhere in the supply chain, i.e., outside suppliers.

At other times, acquiring the resources necessary to meet the demand may be feasible but will require spending that can be authorized only by top management. These are the kinds of issues that the supply folks carry into the Pre-meeting, generally with cost/spending data and with margin contribution data provided by

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<sup>3</sup> These are often the result of a process called Rough-Cut Capacity Planning. They are typically graphical spreadsheets relating *demand* for capacity, derived from the Operations Plan, to the *supply* of capacity at key resources, both in house and at suppliers and contract manufacturers.

the financial participants in both the Demand and Supply Planning phases.

As with Demand Planning, the senior operations executive should serve as a resource to authorize the Supply Plans resulting from this step.

## **Step 4 — The Pre-meeting**

We call this the Pre-meeting because it precedes the Executive session and is preparatory to it. The Pre-meeting's tasks include:

- making decisions regarding the balancing of demand and supply;
- resolving problems and differences so that, where possible, a single set of recommendations can be made to the Executive meeting;
- identifying those areas where agreement cannot be reached, and determining how the situation will be presented in the Executive meeting;
- developing, where appropriate, scenarios showing alternate courses of action to solve a given problem;
- setting the agenda for the Executive meeting.

The key players in this meeting typically include several of the people from the Demand Planning phase, including someone from Product Development, Operations people from the Supply

Planning step, one or more representatives from Finance, and the Executive S&OP Process Owner – that person or persons who provide overall coordination for the Executive S&OP process.

Their job is to do a review of each product family spreadsheet, including subfamilies where they exist, and to make adjustments where appropriate. They also check for resource constraints, most often using the capacity planning displays cited earlier. Where there are constraints, demand priorities must be established and that, of course, can only be done by Sales and Marketing people.

The outputs from the Pre-meeting include:

- An updated financial view of the business, including matching the latest sales call to the business plan for the total company. (This is typically done on a rolled-up, dollarized spreadsheet covering all families.)
- A recommendation for each product family, contained on a Third-Pass Spreadsheet, as to the future course of action:
  - stay the course, no change
  - increase/decrease the Sales Plan
  - increase/decrease the Operations Plan
  - new product launch issues
- New product launch issues not covered within the product family review.
- A recommendation for each resource requiring a major change: e.g., add people, add a shift, add equipment, offload work to a sister plant, outsource, or reduce the number of people or shifts.

- Areas where a consensus decision could not be reached, possibly as a result of disagreement or where competing alternatives might be “too close to call.” In such cases, it can be important for alternative scenarios to be presented – Plan A, Plan B, Plan C – with dollar data as well as units, to show the financial impact.
- Recommendations for changes to demand/supply strategies, where appropriate.
- Agenda for the Executive meeting.

To sum up, the Pre-meeting is a “get-ready” session for the Executive meeting. But it’s actually a lot more than that, because the Pre-meeting is a *decision-making* session. The participants decide what to do about issues within their sphere of authority. For other issues, they decide what to recommend to the Executive group.<sup>4</sup> Regarding the latter, the mind-set that the Pre-meeting participants should have is, “If this were our business, what would we decide to do?” Thus it’s easy to see why many people look upon the Pre-meeting as an excellent training ground for middle level managers wanting to move into the executive ranks.

## Step 5 – The Executive Meeting

This is the culminating event in the monthly Executive S&OP cycle. Its objectives are:

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<sup>4</sup> At Eli Lilly, they call this the *Compromise Meeting*. In most meetings, some people don’t get everything they want; they often have to give a bit in order to settle on a plan that’s solid and serves the best interests of the overall business.

- To make decisions on each product family: to accept the recommendation from the Pre-meeting Team or to choose a different course of action.
- To authorize changes in production or procurement rates, where significant costs or other consequences, such as changes to inventory levels or order backlogs are involved.
- To relate the dollarized version of the Executive S&OP information to the Business Plan and where they deviate, decide to adjust the Sales & Operations Plan and/or the Business Plan, as appropriate.
- To “break the ties” for areas where the Pre-meeting Team was unable to reach consensus.
- To review customer service performance, new product issues, special projects, and other issues and make the necessary decisions.

Outputs from the Executive meeting include the meeting minutes, which spell out the decisions that were made; modifications to the Business Plan, if any; and the updated spreadsheets that reflect changes made at the Executive meeting.

All these things taken collectively form the company's authorized game plan. As such, there is urgency to get the word out to all involved people, and for this reason we recommend that the meeting minutes and the spreadsheets be distributed within two working days of the meeting.

**FAQ:** *What do you do if there's a major event – affecting demand and supply – that occurs shortly after the Executive meeting? It doesn't make sense to wait another whole month to address such a big issue. Is mid-period replanning practical?*

Absolutely. Many successful users, when confronted with such situations, will use an abbreviated, accelerated Executive S&OP process. They'll go through the Pre-meeting steps very quickly, focusing only on those parts of the business that are affected. If the issue can be resolved in one of those steps, fine; mission accomplished.

If not, within a day or two, they'll conduct the Executive meeting – often with a number of the participants on the phone or the Internet – and make the necessary decisions.

Throughout the abbreviated process, they try to keep the steps, the report formats, and the decision-making process the same because the people are familiar with those processes and know they're solid.

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In the next chapter, we'll talk about what kinds of companies are using S&OP, and you may be surprised.