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There is simply no other word for it. The success rate of sales and operations planning (S&OP) programs has been dismal. A third of all S&OP programs fail or produce unclear results. That is one of the most worrying findings from the survey that Supply Chain Management Review ran last year to better understand the impact of the recession from the viewpoints of supply chain executives. The survey, conducted on behalf of IBM and Oracle, showed that about 40 percent of businesses don’t even have a formal S&OP program in place. And it revealed some staggering gaps in the participation of different stakeholders where S&OP processes do exist. Nearly half of the supply chain managers polled conceded that they run their S&OP meetings without regular participation from their companies’ manufacturing and finance departments. More than 50 percent do not involve anyone from marketing.

What’s going on? After all, the S&OP process was designed around close collaboration between such stakeholders. The concept is simple: By regularly getting those who have the most visibility of demand at the same table with those who have the best insights into constraints on the supply side, companies are supposed to be able to build better supply chain plans and to collaborate more effectively to implement those plans.

The idea is not new: It has been around since the 1980s. If done right, S&OP has the potential to significantly improve some key operational metrics. According to the research firm the Aberdeen Group, companies that demonstrate best-in-class S&OP have 91 percent complete order fill rates and logistics costs of as little as 6 percent of sales. And their gross margins average 43 percent.

So the basic question is this: Why don’t companies adopt this apparently simple concept?

The simple answer is that most companies do “get” the concept, but they fall down on its execution. (See sidebar on “When S&OP Goes Wrong.”) They focus on the details of operational process changes and technology enablement—for example, concentrating on the minutiae of calendaring monthly S&OP processes and spending inordinate amounts of time creating reports. While important, those tasks too easily obscure the fundamental factors that can make an S&OP program successful.

This article does not attempt to provide answers to the “what” and “why” of S&OP. It is our assumption that the rationale for instituting an S&OP process is widely understood. Instead, we want to focus on the “how”—the structural underpinnings of a successful S&OP program.

**Five Ways to Get S&OP Back on Track**

Our research on S&OP practices across a wide range of companies and industries point to five systemic flaws in how such programs are viewed and run. It is our belief that companies that want to benefit from the full potential of S&OP must fully address all five areas; short-changing even one of them could significantly undercut the effectiveness of an S&OP program. Let’s look at each one in detail:

1. **Make S&OP a Formal Functional Entity**

   A fundamental reason for S&OP’s failure is that there is no formally defined “house” for it to reside within the organization; it is not recognized as a specific function in the way that finance and marketing are, for example.

   At best, most companies set up small cross-functional S&OP teams. At worst, they cobble together ad hoc teams drawn from different functional groups. Even for
Although sales and operations planning (S&OP) has been practiced for several decades now, many companies still struggle to succeed with their programs. A big part of the problem is that the requisite building blocks to success are either faulty or lacking. The five success principles described here can get an S&OP program on the right track and delivering the kind of results expected.
the cross-functional teams that meet fairly regularly, the S&OP activities are usually their secondary job and in many cases, their after-office work. What's missing is the realization that S&OP, approached properly, involves so much pre-planning and follow-up activity that it requires dedicated effort and full-time staffing. At least as importantly, the S&OP program needs a formal structure and authority so that decisions can be made, communicated, enforced, and acted upon. In turn, a formal structure and declared roles and responsibilities necessitate clear guidelines for measuring performance.

In short, what is required is an S&OP function. It should integrate all the core and supporting functions that have an impact on demand-supply interactions. It should have a named leader who reports directly to the chief operating officer or an equivalent role to enforce

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**When S&OP Goes Wrong**

As one large telecommunications solutions provider, the supply chain processes appear to be very well coordinated and managers confirm that they do practice S&OP. The quarterly financial plan takes into account the sales bookings forecast, the revenue forecast, and the order backlog. The supply chain operations team updates the operations plan to match the financial plan. The operations team executes the plan to meet the financial outlook. And data about bookings and revenues are very accurate.

From an investor's viewpoint, the telecom provider is doing well. It has been growing at almost 20 percent per year on year for some time, and its market share is as high as 40 percent. The company is in a high-growth market sector with relatively long product life cycles; most of its manufacturing is outsourced, and sales fulfillment takes place primarily through distribution and channel partners.

However, all is not well under the surface. Several financial and operational metrics tell a gloomier story. For instance, the company suffers from high expedite and operational costs. Its original operations plan assumes a 70/30 ship/air ratio from its Asia Pacific suppliers to its U.S. distribution centers, but in reality that ratio is 30/70. Moreover, inventory carrying costs are excessive, which is hurting profit margins. Inventory turns are quite low; even though the company does eventually sell everything it makes, it struggles to match customer needs and shorten its sales cycles.

Now too, competitors are beginning to catch up, making price points more sensitive and placing cost metrics higher on the financial dashboard. Overall, there is minimal collaboration among supply chain stakeholders. Sales booking forecasts have little input from distributors, let alone end customers. The operations plan is built to adjust to financial plan, but in many cases with no granular input from sales or marketing. There's no feedback loop from execution to planning. And there's no S&OP meeting at an execution and planning level to carry out what-if analyses that would help supply chain managers to understand the different options and associated costs for demand-supply balancing.

The list of challenges is long, as depicted in the exhibit below. Essentially, the operations team is flying by the seat of its pants in trying to expedite to fulfill orders.

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**Potential Problem Areas**

- Sales booking forecast with limited input from end consumers or channel partners.
- Financial forecast accuracy is 98%, but at aggregate level there are underlying poor performances that are hidden.
- Operational plan created to adjust financial plan with limited or no input from market at the granular level.
- No S&OP meeting at execution and planning level to carry out what-if analysis to understand different options and related costs for demand-supply balancing.

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**Source:** IBM, 2007
the decisions made during the meeting. Above all, the S&OP organization must make sure that effort is managed as a continuous, real-time, cross-functional process rather than a set of episodic, point-in-time decisions.

Linksys built a formal S&OP function with those ideas in mind. The Cisco subsidiary, a provider of networking hardware for consumer and small business markets, had no clear owner for its S&OP process. Its existing process was driven primarily by the demand forecasting and product management teams; attendance by other functions was sporadic and when representatives did attend, they were not always engaged. Consequently, there was nervousness about the demand forecast and production schedule. Also, demand forecasts were being updated at the last minute, production changes were being made inside supplier lead times, and freight was regularly expedited. This never-ending cycle led to excess inventory, higher supply chain costs, and poor customer satisfaction.

Mark Payne, Linksys’ vice president of worldwide operations, instituted a new structure around S&OP, with a clear mission and defined roles and responsibilities. (See Exhibit 1.) The former global forecasting team now leads the process. Its members keep their forecasting roles but they now have broader responsibilities that include S&OP planning. Payne also demanded accountability across the different functions; participants are expected to be knowledgeable and aware of the issues in the business.

Linksys has achieved impressive results to date—many of which were delivered in less than a year. Overall inventory levels fell by more than a third, and expediting dropped from more than a third of all shipments to just 3 percent. Excess and obsolete inventory was cut by 40 percent, and supplier fill rates were boosted from 65 percent to 95 percent.

2. Put S&OP on the Executive Agenda by Analyzing the Financial Implications

Typically, S&OP-related activities are relegated to operational levels. In itself, that is not a bad thing, but it means that S&OP doesn’t get the strategic attention it deserves. Unless and until the practice is on the agenda of a chief financial officer or chief operating officer, it cannot become part of the company “DNA.”

S&OP processes need to be driven top-down, with their financial and business implications made clear and every decision tied to the company’s strategic objectives and financial metrics. So instead of S&OP discussions working through the typical hierarchy of meetings—bottom-up data in daily meetings feeding into weekly meetings that feed into monthly and then quarterly business meetings—it should work the other way around. Every S&OP discussion should start and end with financial metrics that are driven by senior management. (See Exhibit 2.)

This requires detailed “action” and “metrics” mapping along with a metrics hierarchy to create a bidirectional link between operational and financial metrics. Imagine that the COO examines the financial metrics and initiates a root-cause analysis when she picks out a significant deviation in, say, the use of working capital. The operations team then digs into the root cause to unearth a fulfillment problem, for example. Then the team sets out several options for resolution of the problem, weighing the options against the financial implications, and—depending on the severity of the required change—seeking approval from top management. The last step sees the team resolving the problem satisfactorily.

Of course, most S&OP decisions won’t require senior management’s sign-off. But each one must be backed by an analysis of the financial implications. Take, for example, the decision about whether to substitute an out-of-stock item with an expensive item to fulfill a customer’s order. Usually the sales representative will make this decision based on what he knows about product availability, without much consideration of the impact on margins.

What should happen is an analysis to ascertain the profitability of the decision. The core question is: “When, in the event of a stock-out, is it profitable to substitute a low-end product with a high-end one?” The answer lies in the fact that the propensity for substitution increases as the price differential between the high-end and low-end products decreases. But if at the same time there is greater probability of demand for the high-end...
end product—if its forecast numbers are high—then the propensity for substitution is lessened.

3. Start with a Balanced Demand-Supply Plan—at the SKU Level

There are two distinct stages in an S&OP cycle. The first is the planning stage—typically a quarterly cycle—where companies try to arrive at a “single” plan agreed to by all the stakeholders. The second is the operational stage, also occurring during the quarter, where companies try to balance demand and supply as orders start to arrive and as they make a start to manufacturing, procurement and fulfillment against those orders. The two stages themselves are often out of balance.

Companies tend to spend an enormous amount of time and effort on the operational stage when in reality demand and supply are frequently out of balance in the planning stage—as seen, for example, with flawed product mix planning. At a leading telecom equipment provider, the operations group creates a bottom-up plan using sophisticated forecasting tools based on historical shipments at the SKU level. However, after the numbers are rolled up to the aggregate product level, there is always a mismatch between the bottom-up operational plan and the top-down financial plan. As happens at this point in many organizations, the equipment maker’s top-down financial plan takes precedence, and the bottom-up operational plan is changed by altering the product mix to match the financial plan.

To make matters worse, if sales or marketing have not provided their insights, the plan is as unrealistic as it is unbalanced. So it is no wonder that when implementation begins, the plan is thrown aside and people fly by the seats of their pants to meet demand. (See sidebar, “When S&OP Goes Wrong.”) What’s required is a two-way collaboration to take into account the realistic operational picture and to reconcile with the financial numbers.

The second reason why the initial plan is usually unbalanced relates to a lack of demand and supply data at the SKU level. The sales team tends to provide information only at the aggregate level and at times only at the financial level. Take, for example, a sales person responsible for selling PCs to a university who provides her financial forecast without breaking it down by desktops, laptops, and other handheld devices. In fact, salespeople often do have richer information—even if it is “back of the envelope”—about what SKUs they plan to sell and what the mix will look like, broken down by products and customers. The tendency is to hide those levels of granularity in order to have the flexibility to make changes later. But when aggregated across large numbers of sales forecasts, this behavior can significantly impair the overall plan.

The data-sharing processes should be streamlined so that every stakeholder has a view of the demand information, preferably at the SKU level—and can provide input at that level of detail.

4. Apply Performance Management Measures

Behavior is driven by performance frameworks and by metrics. Salespeople are measured on new signings and revenue; operations people are measured on fulfillment and cost.

There is a fundamental disconnect here. There can never be real discipline in the demand plan unless those responsible for demand are also made accountable, to some extent, for the costs that the forecast produces in the supply plan. In other words, sales must be held responsible to a degree for the costs associated with inventory and expedites that are typical consequences of poor demand planning. Salespeople should be incentivized to care about actual margins.

To be clear: These days, many do have margin incentives in place, but they are not held accountable for the inventory outcomes of flawed S&OP decisions. And it is those elevated inventory levels that eat into margins. We know of some far-sighted companies that are tying their salespeople’s total compensation to the margins...
realized after execution of the S&OP processes.

The lack of sales participation in the S&OP process is a big problem. Many salespeople argue that the uneven nature of demand makes it impractical to predict so there’s not much merit in them participating in S&OP discussions. They often contend that it makes more sense to create statistical forecasts based on historical demand and then make adjustments as the reality unfolds. That argument holds good up to a point. Examination of the data shows that a portion of demand is always known to sales with some level of confidence, and that information can therefore be predicted and communicated. When that happens via a formal and periodic collaborative S&OP process, the part of demand that truly is unpredictable will gradually decline.

5. Use a Playbook to Establish the Demand-Supply Balancing Process

Traditionally, companies use a lot of “tribal knowledge” during S&OP meetings to manage demand-supply balancing. Typically, the company’s planners—especially those who are longtime employees—are driving those discussions. Although these approaches may be quite effective, they are not tenable over the long term because they are high-risk and they are not scalable. If a veteran planner leaves the company, a lot of institutional and process knowledge goes with him.

For those reasons, supply chain leaders will do well to use predefined, documented playbooks to manage their formal demand-supply balancing processes. The playbooks should cover most of the scenarios that the company encounters during its supply and demand fulfillment operations. The playbook approach brings consistency to decision-making, cuts the time it takes to make decisions in S&OP meetings, and lays the foundations for measuring the effectiveness of decisions and for building continuous improvement into the process. In all cases, the playbook is rooted in the financial metrics. (Exhibit 3 gives an example of a playbook on revenue targets.) Several major technology companies—specifically the personal computer manufacturers such as Dell—have done extensive work in formalizing S&OP playbooks, and they use them consistently.

Long-term Effort

Instituting an S&OP program involves much more than setting up a few periodic meetings for demand-supply balancing. S&OP is at the core of a company’s strategic, financial and operational performance and as such, it requires a much broader mandate in the organization.

The journey begins with senior management’s realization of the need to form a discrete S&OP function. It starts to gather momentum when there is a performance framework that fosters collaboration and accountability. For many organizations, the sooner that journey begins, the better.

Sources:
2 Executive Sales & Operations Planning: Process and Technology Strategies, Aberdeen Group, June 2007