



Sales and operations planning for business orchestration

Four requirements for making the transformation

A different interpretation of and expectation for sales and operations planning (S&OP) has emerged – one that includes better goals and broader competencies to drive maximum value for enterprises. Discover the four requirements for transforming your traditional S&OP to a modern-day process that delivers results.

The original Sales and Operations Planning (S&OP) process, has been implemented by many companies, is primarily Operations led but spans many functions in the organization including Sales, Marketing, Finance, Engineering, Procurement, and Manufacturing. It is largely focused on satisfying corporate objectives, principally revenue and margin goals, by predicting demand and subsequently ensuring adequate supply. The goal is to attempt to meet a forecast for a discrete planning horizon, usually 6-24 months. Typically, the process is sequential and involves isolated planning activities consolidated at a high level and then pushed up to management for approval, and pushed down to manufacturing for execution. Ultimately, this serial piece-process has proven to lead to ineffective and inefficient planning cycles that drive less than maximized value for the enterprise, largely because it does not adequately address cross-functional issues or concurrent activities.

As a result, a different interpretation and expectation for S&OP is emerging that entails better, broader goals, which translate to:

- ▶ Increasing the effectiveness and responsiveness of the process by driving S&OP not as a fixed, stepped process from which to strictly execute, but rather as a strategic means of coordination and continuous synchronization of multiple functions into a unified response to both medium term goals and real demand. This requires incorporating concepts such as demand sensing and demand translation to drive a more agile S&OP process that flexes cadence with market needs.
- ▶ Asking (and answering) the right questions for the organization as a whole and making collaborative, conscious choices across competing objectives based on predictive and exploratory “what-if” analysis.
- ▶ Understanding and proactively managing the interplay between financial performance and operational performance by linking operational metrics (such as on-time delivery, inventory turns, and capacity utilization) to financial metrics (such as revenue, margin, and cash flow) as a way to ensure operational plans are consistent with financial objectives.
- ▶ Developing a different information and analysis systems layer that crosses organizational boundaries, planning levels, and time ranges that can, as a result, drive horizontal process enablement.

Traditional S&OP, as a serial piece-process, has proven to lead to ineffective and inefficient planning cycles that drive less than maximized value for the enterprise.

It is with this model of S&OP, whereby process execution evolves into operational orchestration; efficiency goals are coupled with measures of effectiveness; and cost control objectives are appropriately balanced with mandates for delivering business performance and value-based outcomes.

1. Acknowledging and adapting to plan variance

With the recognition that a plan can never be 100% correct, the proficiency in easily and quickly detecting a plan variance (demand sensing) and subsequently enabling a response to demand and supply conditions (demand translation), should be of equal importance as the ability to create the original plan.

S&OP as a means of orchestration requires continuously monitoring plans and proactively acting on events that have, or will, put business performance at risk, whether in the short term or medium term. Sales and operations planning should be about establishing an initial general direction for Operations but then enabling a robust and qualified capacity to respond adeptly as conditions require.

Making the S&OP process more fluid doesn't mean plan execution, governance, or process adherence is less enforced, but rather continuously enabled. Process orchestration and task control measures should ensure that the initial planning process, as well as subsequent response activities, are producing decision behaviors that are reliable, repeatable and consistently aligned with overall corporate objectives and most current business realities.

2. Real time “What-if” for tradeoff analysis

The multiple functions of S&OP have long been segmented into different isolated activities that reflect organizational structures and functional goals, despite the fact that by its very definition, sales and operational planning is a collective activity requiring collaboration, consensus, and compromise across several functions, often with conflicting objectives and performance measures.

Likewise, the traditional goal of S&OP – to come up with a single forecast to satisfy – is inherently contradictory to the characteristics of the inputs of the process, whether that is the differing demand forecasts, broad scope of business assumptions or varying supply and capacity expectations. The “One Number Plan” concept is flawed because of the innate uncertainty in the inputs and thus, the end plan itself. S&OP should be about understanding the range of possibilities and managing within that scope.

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So whether the need is to balance competing objectives during plan development or to course correct because of unmet expectations or unplanned events, “what-if” scenarios are a key capability in which people can perform an analysis of the projected outcome of a set of choices, such as:

- ▶ Testing alternative hypotheses of a particular plan
- ▶ Testing business strategies against a number of alternative futures
- ▶ Evaluating the likelihood of achieving an outcome
- ▶ Evaluating the operational and financial impact of action alternatives



Multi-scenario “What-If” analysis dashboard

Simulations are as much about gaining insight through exploration as they are about arriving at consensus across multiple functions. As such, simulations should be able to be made on any type of change — demand, supply, product, policies or assumptions. Without the ability to evaluate different options quickly across multiple metrics – both financial and operational – it is difficult for a team to arrive at a conclusion of the best way forward that balances opportunity with risk.

3. Financial impact analysis to drive profitable decisions

Scenario analysis done right is about unreservedly exploring multiple decision considerations in the context of corporate objectives. Seemingly basic questions can be very complicated to answer, and typically the higher level of question, the more influencing factors there are to consider.

Beyond deciphering and coordinating a unified response to real demand, there are a whole host of events that can occur within an S&OP period which can have a big impact on financial performance and ultimately how a company would conduct their business, including things like:

- ▶ Engineering being late with the design of a new product
- ▶ Competitors launching competing products early
- ▶ Delays in new production capacity
- ▶ Large increases in commodity prices
- ▶ Economic cycles

Whether it is responding to demand or a particular disruption as listed above, one should be able to answer:

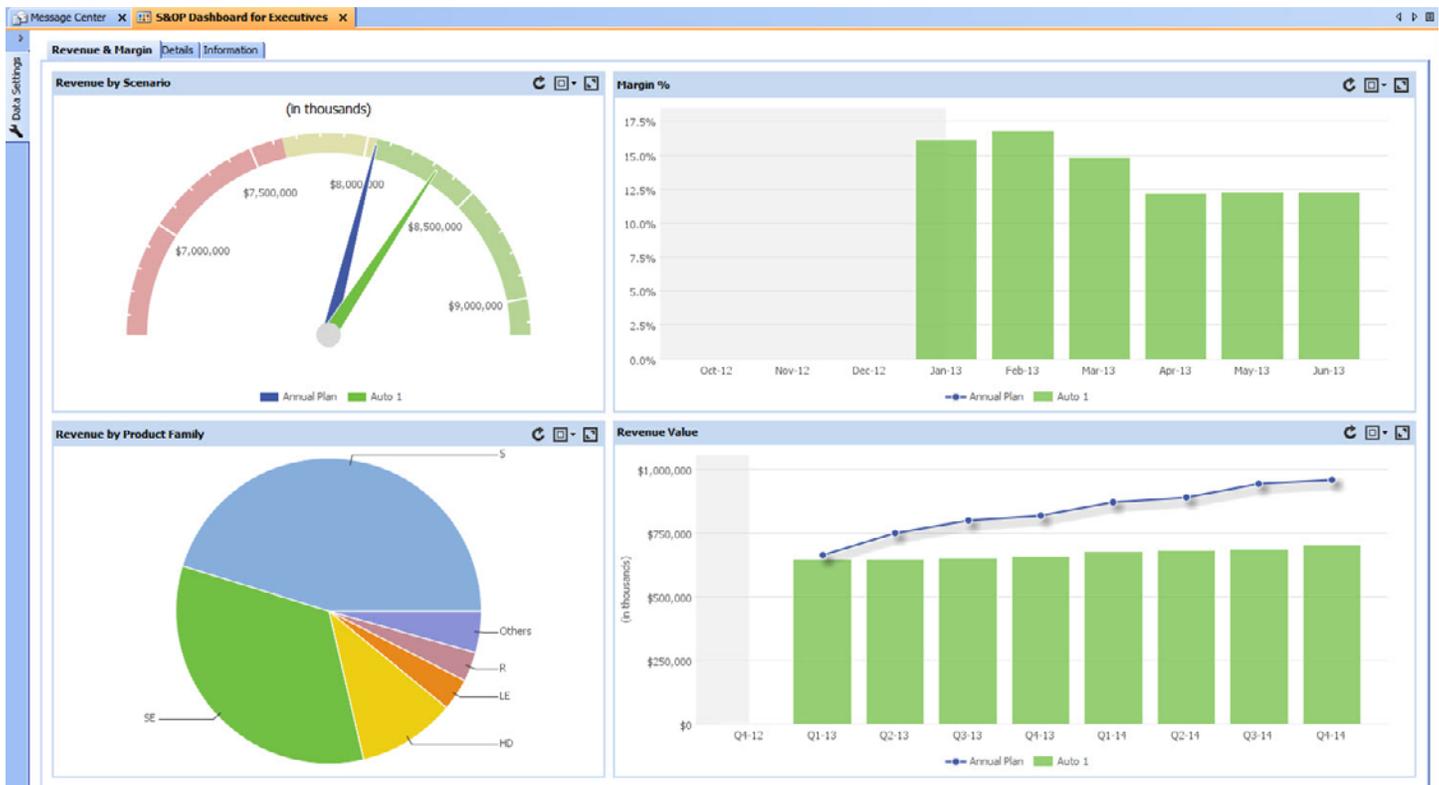
- ▶ What will it do to profitability?
- ▶ What will it do to market share?
- ▶ What are my options to address it?
- ▶ Can I accomplish it with my resources?
- ▶ Are the risks worth it?

These questions all have significant financial considerations, yet there is a disconnect between Operations and Finance in most S&OP processes that make projecting what the impact decisions will have on financial metrics exceptionally difficult, or at the very least, ineffectually slow.

| From: 2012 To: 2013 | | Auto Baseline | | Current Plan | | Supply Adjust | | |
|-------------------------|--------|------------------|------------------|---|------------------|---|------------------|---|
| Metric | Weight | Target | Result | Score | Result | Score | Result | Score |
| Revenue | 20.0% | \$15,400,000,000 | \$13,755,638,917 | 89.3% ▲ | \$13,755,638,917 | 89.3% ▲ | \$15,783,724,308 | 102.5% ✔ |
| Revenue at Risk | 20.0% | \$4,000,000,000 | \$0 | 200.0% ✔ | \$0 | 200.0% ✔ | \$6,527,032,055 | 36.8% ● |
| Revenue at Risk % | 0.0% | 2% | 0% | 200.0% ✔ | 0% | 200.0% ✔ | 37% | 0.0% ● |
| Margin % | 20.0% | 5.25% | 5.35% | 101.9% ✔ | 5.35% | 101.9% ✔ | 4.92% | 93.8% ✔ |
| Inventory Turns | 20.0% | 12.00 | 11.65 | 97.1% ✔ | 11.65 | 97.1% ✔ | 13.46 | 112.2% ✔ |
| Period Ending Inventory | 20.0% | \$510,602,567 | \$510,603,255 | 100.0% ✔ | \$510,603,255 | 100.0% ✔ | \$510,606,443 | 100.0% ✔ |
| Overall Score | | | | 117.7% | | 117.7% | | 89.1% |

Scorecard view of financial and operational impact of proposed scenario

To achieve this insight one must be able to compare the current state of an S&OP plan to a future state and evaluate the difference. Such things as encompassing financial metrics and calculations within the “what-if” scenario analysis capability, incorporating financial KPIs in scorecards and dashboards, and seamlessly translating between units, dollars, and other units of measure, are all essential for being able to easily and quickly link operational plans and activities (both short term and medium term) to projected financial outcomes.



S&OP executive dashboard – results of proposed scenario

4. An information layer for end-to-end process enablement

Linking 'cause' to 'effect' from either an operational or financial perspective can only be achieved by having a complete representation of your supply chain.

It is for this reason that it makes clear sense to use a single solution to tie the highest level demand signal (e.g. product family forecast) to the very lowest level raw material component, while simultaneously supporting near term planning (days & weeks) and long range planning (months & years). When the whole organization works from one data source, there is increased consensus and fewer surprises. And having all data in one place (including data from contract manufacturers and suppliers) enables faster and more reliable plan development as well as clearer, quicker insight into the impact of changes.

For most supply chains, data needs to flow between systems that have been designed to satisfy functional needs in isolation. And it is what and how things take place between these systems that companies are struggling to manage.

Unfortunately, for many, this is not the case. Most S&OP tools focus primarily on an aggregated view of demand and a static and high-level representation of supply. At best, supply constraints are determined using rough cut capacity planning where only key constraints are included. In some cases, key or constrained materials are considered. Further, timing and interactions of those key constraints are ballpark estimates at best. The true impact of the plan (or feasibility of the plan) isn't truly known until after the S&OP plan is disaggregated down to the MPS.

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The conversion of a demand signal into an appropriate supply signal has to take place at each node of the supply chain before the signal can be propagated to the next node. It is difficult enough to do this with standard products at a finished goods level, let alone with a configurable product that is made up of hundreds of components, in a highly outsourced and distributed supply network.

This is where the need for the real-time information layer comes into play. For far too long, companies have tried to enable this layer with email and Excel, a clear indication that the core transactional layer is not satisfying the need. The dominant mechanism of moving data between functions and organizations is still overnight (at best) EDI between ERP systems. The use of email and Excel is merely a mechanism used to try to overcome the limitations of operating an end-to-end supply chain with cascaded EDI transfers.

What companies need is a single end-to-end solution rather than a hodge-podge of functionally-focused applications loosely tied together with SOA technology.

But even if one manages to get beyond email and Excel in creating an information gathering layer, the challenge then is assuring any calculations performed on that data are consistent with the calculations performed by the respective ERP at each node. It defeats the whole purpose of the “real-time information” layer if at each level, the MRP or planning analytics have to be invoked in each of the ERP systems. Yet this is necessary to translate demand into required supply in a manner that is consistent with the underlying systems. In other words, a truly functional demand-driven value network (DDVN) must not just contain the data, but must also be able to emulate the respective policies, bills-of-material, routings, sourcing rules, lead times, capacities, and other aspects of the supply chain model.

Ultimately, effective business orchestration requires companies to eliminate the need to tap into multiple systems or integrate data in various formats from several applications that each support only a single function or layer in the broader S&OP process.

The S&OP transformation

A horizontal process capability is required in order to achieve S&OP transformation. Focusing on and satisfying individual functional needs – demand planning, supply planning, inventory optimization etc. – is insufficient. What companies need in order to achieve horizontal, multi-functional process orchestration and alignment is a single end-to-end solution rather than a hodge-podge of functionally-focused applications loosely tied together with SOA technology.

Each planning function may have their own span of control and metrics, but any decision made by one function will almost always have an impact on at least one other function, and more likely have multiple impacts on multiple functions. Likewise, decisions made in the mid-term (planning) and short-term (execution) horizons are linked very tightly and cannot be treated as separate along some arbitrary time fence. Only when the information and the analytical capabilities are contained within one system will you achieve broad and deep visibility, fast and accurate analysis, and effective and continuous alignment throughout the complete planning time horizon.

Ultimately, to achieve orchestration requires a platform on which a team of people across functional and even organizational boundaries can freely explore the financial and operational consequences of possible actions quickly and collectively. Managing S&OP from a single application enables companies to better balance tradeoffs and make value-based decisions for the enterprise – both at the time of plan development or when the S&OP guidance is violated due to unplanned events.

S&OP transformation requires a single system (with a single data model and user interface) that can:

- ▶ Integrate data from every division, location, department, product family, legacy system, and supply chain partner; View and work with data at multiple hierarchies at any time to support specific, quick and collaborative “what-if” analysis
- ▶ Administer:
 - Both demand and supply planning
 - Both long-term and short-term planning
 - Both operational and financial performance management
 - Both risk identification and mitigation
 - Both “what-if” creation and evaluation
 - Develop iterative collaborative processes for any part or stage of S&OP cycle



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About Kinaxis Inc.

Offering the industry's only concurrent planning solution, Kinaxis helps organizations around the world revolutionize their supply chain planning. Kinaxis RapidResponse, our cloud-based supply chain management software, connects your data, processes and people into a single harmonious environment. With a consolidated view of the entire supply chain, you can plan expected performance, monitor progress and respond to disconnects when reality hits. RapidResponse lets you know sooner and act faster, leading to reduced decision latency, and improved operational and financial performance. We can prove it. From implementation to expansion, we're here to help our customers with every step of their supply chain journey.

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