Implementing a Closed-Loop S&OP and S&OE Process: Lessons from the NFL

BlueYonder

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To reach their financial, customer service and sustainability goals, companies need a sales and operations planning (S&OP) process that is strategic, visionary and long-term in nature, working seamlessly alongside a short-term, tactically focused sales and operations execution (S&OE) process that carries out the plan.

These activities should be distinct from one another, two separate halves of a closed planning-and-execution loop. But all too often they are muddled together. In high-level S&OP meetings, valuable time is wasted discussing day-to-day tactical problems, instead of bigger-picture issues such as market trends, the profit-and-loss statement, the balance sheet, competition, demand realization and capacity-expansion scenarios. How can your organization create a true, closed-loop S&OP-S&OE? Professional sports teams may hold the answer.

In today's fast-moving, hyper-competitive business landscape, few processes are as critical as sales and operations planning (S&OP). This high-level, strategically focused process asks the key questions, "What is likely to happen in the next few months?" and "How will we respond to those threats, risks and opportunities?" Recognizing S&OP's central role in preparing for the future, most organizations invest heavily in S&OP processes and technology solutions.

Equally critical, but not as widely recognized for its contributions, is sales and operations execution (S&OE). This activity, which is separate and distinct from the longer-term planning process, focuses on tactical matters and day-to-day obstacles. S&OE asks the questions, "What is likely to happen today, or this week?" and "How can we keep the plan on track?"

Why does sales and operations execution get so little attention? Often, sales and operations execution is not seen as a separate and distinct activity, but gets muddled into the broader S&OP process. Quarterly or monthly S&OP meetings are focused on the short-term tactical responses needed to maintain performance, instead of the long-term vision needed to take performance to a new level.

What's wrong with this muddled approach? Neither planning nor execution gets the attention it deserves. The organization cannot make long-term sales and operations plans that are truly transformative in nature, which is increasingly demanded in today's business world. Similarly, execution gets short-changed. Instead of learning from obstacles and gaining knowledge, the business encounters the same daily problems again and again. There is neither institutional learning nor continuous improvement.

The solution? Optimizing both planning and execution

The answer is clear. Companies need to focus adequate attention on both S&O planning and execution. While these activities must be part of a single, closed-loop process, they must be viewed as separate and distinct activities that feed into one another. Just as the long-term plan impacts short-term execution, lessons from daily implementation and short-term execution must be fed back into the higher-level planning process.

Not only does this closed-loop approach create a culture of continuous learning and improvement, but it also supports the ultimate vision of the autonomous, self-healing supply chain. Daily execution cannot rely on managing the same issues, like expedited deliveries, over and over.

Machine learning (ML) and artificial intelligence (AI) can help by automating decisions in the short term and also feeding into the longer-term S&OP process. For example, smart technology can compute real-time, dynamic parameters like lead times from the short-term S&OE process and leverage them for the longer-term S&OP process, as opposed to relying on static planning parameters. This feedback loop will make the entire S&OP-S&OE process smarter and more agile on an ongoing basis.

Strategic planning and smart execution: A playbook for success

Want to witness a successful closed-loop planning-and-execution process firsthand? Just watch an NFL football game on any given Sunday.

During the off season, the coaches work on a team roster and a long-term playbook that anticipate the challenges the team is likely to face in the coming months. The coaching staff reviews statistics and watches competitors' films from the previous season to see what they're going to be up against this year.

Once the season begins, it's up to the players to execute the plan successfully, which means real-time agility and problem-solving. When actual performance during a game deviates from the plan, smart, seasoned players make in-game adjustments to keep the plan on track. The entire team deals with short-term obstacles and learns from the results.

Post-game, the coaches and players work together to strategically adjust the long-term plan and improve the playbook before the next game.

Watching a football game unfold, it's easy to see the logic behind this closed planning-and-execution loop. And it mirrors the way many successful sports teams work in the real world, season after season. So why aren't more companies closing the loop and giving equal weight to execution?

Certainly part of the problem is cultural. Many businesses have focused on S&OP exclusively, considering daily execution just part of this broader activity. They lack a separate S&OE team and a distinct execution-focused process. However, Blue Yonder's own research among planners has revealed a disturbing side effect. In companies focused only on S&OP, planners spend 70% of their time dealing with supply chain disruptions and managing execution, instead of taking a more strategic view.

Another obstacle lies in the adoption and application of advanced technology solutions. Today there are powerful tools available to support S&OP and S&OE as distinct activities, while also linking them via a shared platform. In addition, artificial intelligence and machine learning are readily available to support this closed-loop process by gathering and applying data. But many companies still use outdated technologies.

The transformation to a closed-loop process

What does a closed-loop S&O planning and execution process actually look like in the business world? It demands two distinct teams, with different objectives, goals, agendas and a different meeting cadence.

The S&OP team meets much less frequently, usually monthly, as it plans for an 18- to 24-month horizon. This meeting is purely strategic in nature, with the goal of meeting the budget committed to Wall Street, as well as taking a visionary look at major threats and opportunities.

This meeting is informed by data gathered across a shared, best-in-class technology platform that aggregates and analyzes data on industry trends, product launches, competitor advances, long-term demand forecasts and other factors that may signal risks and opportunities. This technology platform delivers the capability to do rapid, directionally correct demand, supply and financial what-if scenarios leveraging internal insights based on historic execution. However, daily execution issues are not part of the long-term S&OP meeting.

These planners take a high-level, futuristic perspective on where the business is heading over the next year and a half to two years. Their plans are handed off to a separate and distinct team for execution.

The dedicated S&OE team meets at a much more frequent cadence, typically every week, to look at extremely short-term issues such as materials shortages, over- or under-capacity issues, anticipated staff overtime, transportation availability and the associated financial impact. As it identifies and addresses these issues, the S&OE team relies on the same, shared technology platform as the S&OP team. Backed by AI and ML, and connected to sales and operations activities across the end-to-end supply chain, this platform senses upcoming disruptions, makes smart recommendations incorporating the business impact, and gathers lessons learned for future reference. The platform also gathers and analyzes data on short-term events that may impact sales and operations performance that week, including news events, weather forecasts and social media influences.

As execution issues are successfully managed, the technology platform leverages machine learning to identify and record the earliest signals of these issues, so these disruptions can be recognized earlier in the future. The platform also measures and records the success of the intervention, creating a repository of best practices. The platform uses all this data to become smarter and more autonomous over time. As the system learns, eventually a much lower level of human intervention may be required for common execution

issues, allowing supply chain talent to focus on more strategic opportunities.

By separating these two activities, each team can focus its full attention on a given task, either creating the best strategic long-term plan or delivering the best short-term execution results. Both teams are equipped with the skill sets they need, have clear roles and accountabilities, and are given the time and resources required for success. The S&OP-S&OE process is a powerful closed loop that gets smarter and faster all the time, creating an environment where true transformation is not only possible, but probable.

The payoff is significant

Implementing the cultural change needed to support distinct S&OP and S&OE teams can be challenging. And most companies, though not all, will need to replace disparate technology solutions with an industry-leading, platform-based approach. But, as documented by analysts and early adopters, the return makes the investment more than worthwhile.

Gartner has published the results of an internal study on companies that have implemented a distinct S&OE process (see graphic)1. Of those companies that focused on reducing inventory levels via S&OE, 67% saw an improvement. Sixty-two percent of enterprises chasing service improvements made real progress. Other reported benefits of an S&OE initiative included greater asset utilization, higher success rates for new products, better adherence to production schedules, lower expediting costs for transportation, reduced write-offs and fewer lost sales.

Not only did these companies achieve short-term benefits, but these benefits had huge potential strategic implications over the longer term. For example, by achieving more successful product launches, these organizations could communicate the key success factors across the entire supply chain, from product development to marketing, to make future launches even more likely to succeed. And, by using a platform infused with machine learning, the supply chain can autonomously "learn" from these best practices, as well as gain the ability

Gartner conducted a study of those organizations with a dedicated S&OE process in place. It found that the financial and service benefits are wide-ranging.

Create S&OE-Focused Subset of Metrics to Realize Improvements
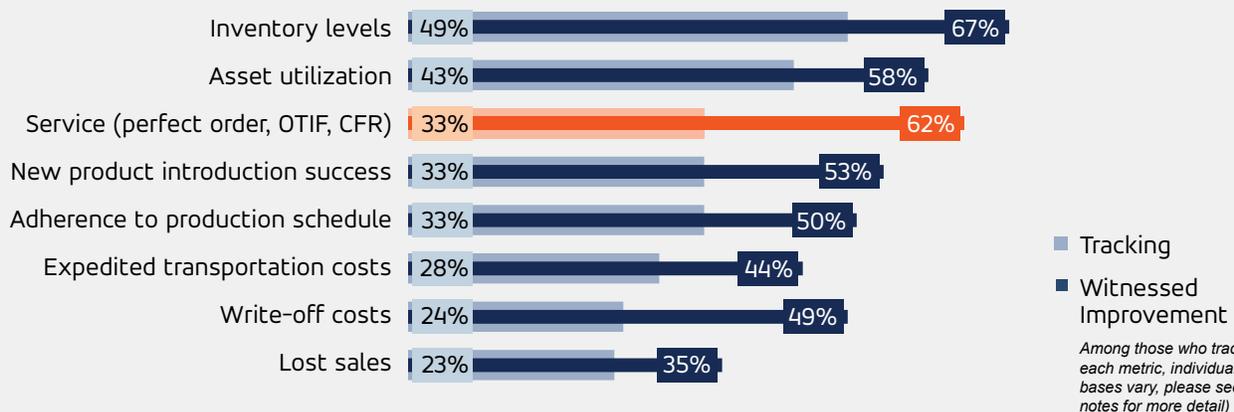
Metric	Tracking	Witnessed Improvement
Inventory levels	49%	67%
Asset utilization	43%	58%
Service (perfect order, OTIF, CFR)	33%	62%
New product introduction success	33%	53%
Adherence to production schedule	33%	50%
Expedited transportation costs	28%	44%
Write-off costs	24%	49%
Lost sales	23%	35%

■ Tracking
■ Witnessed Improvement

Among those who track each metric, individual bases vary, please see notes for more detail)

to recognize and predict conditions that will impact business results. With a cognitive end-to-end platform, winning literally becomes a habit.

With over 4,000 customers worldwide, Blue Yonder has firsthand experience that demonstrates the enormous possibilities of a cognitive closed-loop planning-and-execution process, supported by advanced technology. As they seek to fulfill their potential, Blue Yonder customers tend to be pioneers and innovators. Some have world-class S&OE teams already in place that are distinct from S&OP. Those companies have realized outstanding financial and service results.

The payoff can be surprisingly fast. As one example, a leading appliance company was able to go live with Blue Yonder's Luminate™ Digital Control Tower, a critical enabler of S&OE, in just a few months. By acting as an end-to-end crisis control center, Luminate Digital Control Tower enables the S&OE team to see, interpret and act on real-time information from the entire supply chain and extended third-party digital ecosystem. Via machine learning based guidance, this revolutionary solution makes smart recommendations and builds institutional knowledge that ensures continuous learning and greater levels of autonomy over time. These learnings from the short-term S&OE process then feed back to the mid- to long-term S&OP process.

Similarly, Mercedes Benz USA is capitalizing on Blue Yonder's Platform approach and three Blue Yonder solutions to optimize the delivery of about 350,000 spare parts SKUs to 570 dealers in the US. Blue Yonder's advanced software enables the company's execution team to identify and respond to production constraints, supply variability, demand variability and the complex logistics involved in sea-freight sourcing of components from Germany. The company's closed-loop planning process is a result of an executive decision to invest in

technology leadership and foster innovation. With a current service level of 96.5%, Mercedes Benz USA is a pioneer in applying S&OE to optimize performance.

Get started today

Want to begin leveraging the benefits of an S&OP-S&OE closed-loop process?

Optimize both your planning and execution activities by supporting them with the right organizational structure, as well as Blue Yonder's industry-leading AI/ML platform for S&O planning and execution. Backed by the power of artificial intelligence and machine learning, Blue Yonder's industry-leading solution will help you close the loop and position your business as a planning-and-execution leader.

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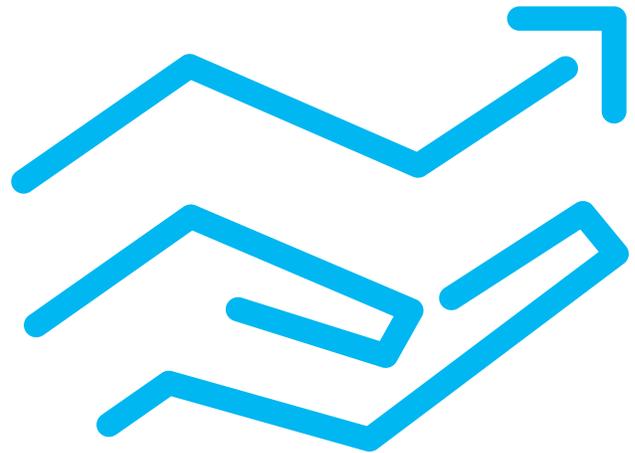
1 "S&OE — The Missing Link Between Integrated Planning and Execution," presentation by Mike Griswold at Gartner Supply Chain Planning Summit, November 2019, Denver CO.

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