SAP INSIGHT
Business Process Innovations

SALES AND OPERATIONS PLANNING
THE KEY TO CONTINUOUS DEMAND SATISFACTION

OLIVER WIGHT


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SALES AND OPERATIONS PLANNING
THE KEY TO CONTINUOUS DEMAND SATISFACTION

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EXECUTIVE AGENDA

All companies do some form of sales and operations planning (S&OP) to synchronize market data with production output. But most practice a planning process based more on logistics than strategy. Demand is forecast based on last month's numbers, and historical performance leads the analysis. Companies rarely solicit a cross-section of perspectives from different functional areas or supply chain partners. The practice is static and insular, disconnected from the reality of today's complex supply chains. As a consequence, sales and operations planning becomes almost dysfunctional, lacking the communication and the insight into market demands required to carry out business plans and achieve strategic goals.

Taking a more strategic approach, however, the sales and operations planning process can be designed to bring a company's marketing, finance, sales, and operations departments together to continuously monitor and meet customer demand. As the separate departments collaborate, they create business plans with the latest and most accurate data and begin to develop and measure a common set of metrics. With integrated S&OP processes, companies are better able to synchronize supply and demand, improve revenue, decrease costs, and increase customer satisfaction.

The following examples illustrate how three global companies are putting this strategic process into practice.

- Brown-Forman Corporation believes its approach to S&OP is a better way to align supply and demand with the company's business requirements, build better internal communications, and plan activities to meet customers' needs.
- ExxonMobil Chemical leverages sales and operations planning to improve customer service while controlling costs.
- Procter & Gamble credits its own version of S&OP with creating a single set of sales and supply plans to optimize resources to support the company's business objectives – assessing the financial implications of the plan as well as its impact on both supply and demand.

While companies like these are reaping the benefits of effective S&OP, many others continue to take a more static approach. By using a five-step review process, however, companies can review and evaluate new products in development and future plans in the context of demand, supply, financial reconciliation, and management analysis. The result is an S&OP process that begins to follow the model of the companies that are leaders in this process.

With integrated S&OP processes, companies are better able to synchronize supply and demand, improve revenue, decrease costs, and increase customer satisfaction.

The best sales and operations planning process creates the framework for five integrated and interdependent business reviews to ensure that tactical plans align and support the company's strategy. This framework helps develop the consensus among stakeholders necessary to continue the planning process, allows for management understanding and analysis, and forms the basis for the tactical plans necessary to satisfy demand with an integrated and responsive supply chain. Companies perform specific activities within each process as outlined below:

- **New product review.** Analyze the potential for new products to impact the market, considering elements such as rationalization with channels, pricing and margin implications, ramp-up projections, and both incremental and cannibalized demand.
- **Demand review.** Anticipate total market requirements for all offerings from all perspectives, using sources such as quantitative forecasts, input from sales and marketing, and what-if analysis – balancing orders and demand and achieving consensus on various demand scenarios.
- **Supply review.** Review the supply chain capacity, including inventory requirements, procurement policy, and logistics, to make certain that there is sufficient manufacturing and distribution capacity. In this step you can identify any potential decision points such as the need to outsource for additional capacity.
- **Financial reconciliation review.** Translate the supply and demand plan into financial terms of revenue, margin, and working capital requirements. Then balance supply and demand, making decisions with regard to potential supply issues and contingencies for the range of possible demand scenarios.
- **Management evaluation and analysis.** Evaluate the results of your activities to decide how to run the business moving forward. This includes an evaluation of planned versus actual results, an analysis of profitability by customer, channel, and product, and a look at perfect order, cash-to-cash, and asset performance.

While this approach to S&OP creates an invaluable foundation for clear-sighted decision making, the process adds the most value when integrated with other core business processes including inquiry to order, procure to pay, order to cash, and new product introduction and development. With a full-fledged S&OP program in place and integrated throughout operations, a company can expect to do the following:

- Speed up the commercialization of new products and improve time to value
- Make budgeting less complex and more accurate
- Enhance sales organization effectiveness
- Create greater supplier effectiveness, reducing cycle time and procurement costs
- Concentrate more thoroughly on building customer loyalty and greater satisfaction
- Improve collaboration between the company and its external partners
- Lower operating costs and reduce order fulfillment times
- Increase inventory turns and reduce cash-to-cash cycle times
- Improve return on net assets

This *SAP Insight* discusses the problems faced by most S&OP programs, how some companies succeed, and the key to the five-step review process.

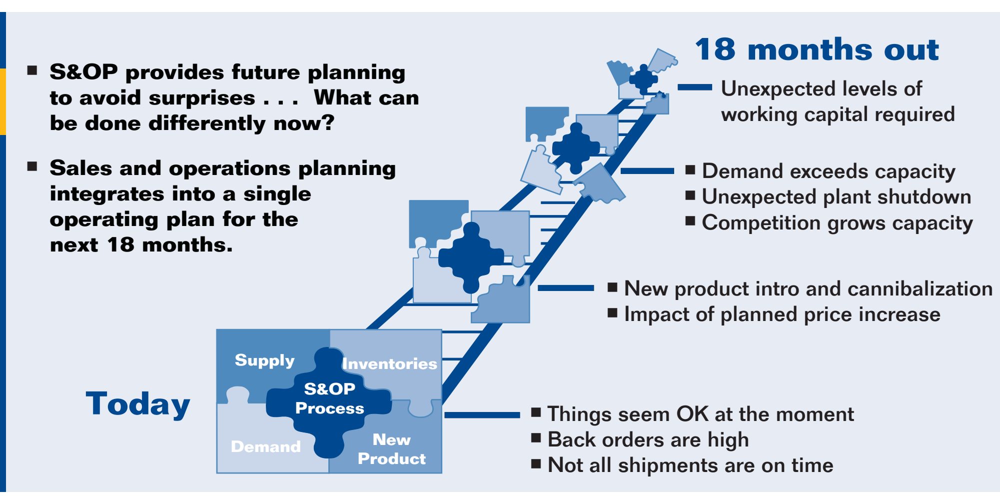
THE TROUBLE WITH PLANNING WHEN INFORMATION IS NOT SHARED

Most companies have implemented some form of sales and operations planning for quite some time, but few are satisfied with the current process. As a result, they are encountering more and more problems, particularly as their supply chains become more complex – and can suffer from the "four stages of planning grief" (see Figure 1). In stage one the status quo seems fine, but symptoms of future problems begin to show up – such as mounting back orders. In stage two, the symptoms intensify as the company institutes planned price increases while introducing new products, effectively cannibalizing its own market. In stage three, demand increases, but manufacturing capacity can't keep up – and competitors begin to capture the unmet market demand and increase their market share. Finally, in stage four, the competitive trickle becomes a flood of competing products, ultimately depleting working capital and affecting financial performance.

In addition, many S&OP processes are incapable of reconciling the perspectives of sales, marketing, manufacturing, and logistics or extending the supply-chain decision process to include customers and suppliers. When each part of a company is operating separately and lacking effective communications that share updated data, stakeholders make decisions independently without recognizing the broader impact. Instead, stakeholders need aggregated data presented according to different dimensions that are meaningful to them: time, organization, product, geography, unit of measure, and so forth, Thus, the company's S&OP process can link decisions at the strategic level, align tactics with strategy and goals, and allow decision makers to adapt to changing circumstances as they develop.

Figure 1

The Four Stages of Planning Grief



INADEQUATE TECHNOLOGY SPELLS DOOM

Some companies approach the S&OP process using spreadsheets and simple tools for rudimentary collaboration. The spreadsheet technique, while a low-cost option in the short term, presents several challenges, including different versions of the same data and an inability to integrate and reconcile S&OP with underlying business processes. Data becomes outdated very quickly, hampering collaboration, while team members get frustrated trying to piece together the picture of the company from faxed or e-mailed spreadsheets.

The consequences of this approach can be costly and far-reaching, for some of the following reasons.

- **Product supply and the market are not reconciled.** Repeated stock-outs cause distributors to switch to other manufacturers for the same product. Distributors show little mercy in making up for any slowdown in getting stock through their pipeline.
- **Excess inventory dilutes prices.** Excess inventory is the mirror image of the stock-out. For example, when an electronics manufacturer bet on the wrong style of MP3 player, production capacity and demand were out of sync for more than six months. The company wound up with excess capacity that it had to dump on an unsuspecting market, taking a big financial loss.
- **New product introductions fall flat.** The successful commercialization of new products mandates close coordination between research and development, marketing, sales, production, supply, and logistics. An information or communications failure between any of these links can result in lost market share because of a tardy or ineffective commercial launch of a new product.
- **Supply mix does not meet market demand.** Many large companies must support a complex supply web and balance their multifaceted supply mix with the requirements of diverse customers, channels, and regions. Without sufficient information, these same companies may have difficulty adapting their supply chains to meet the constantly shifting demands of their best customers, opening more productive channels, or negotiating for access into new geographic regions.

LEARNING FROM THE BEST S&OP PRACTICES

Companies like Brown-Forman, ExxonMobil Chemical, and Procter & Gamble are taking sales and operations planning to a new level where it harnesses the most effective technology, enables communication, and creates comprehensive business plans based on both experience and expectations. The best S&OP focuses on demand as much as supply, differentiates between what is viable and what is not, fosters real communication between all parts of the value chain, and as a result, anticipates and avoids unwelcome surprises.

SAP research has found that the best S&OP process creates an unrestrained demand forecast by accomplishing the following:

- **Accounting for internal factors** – The process should consider elements such as price changes, lead times, sales plans, product promotions, and new product launches.
- **Accounting for external factors** – The process should consider elements such as customer input, the competition's activities, the trajectory of the economy, regulatory considerations, and market trends.
- **Considering a product's complete life cycle**– This begins with introduction and ramp-up and continues through final phase-out.

The supply side of leading S&OP processes emphasizes out-of-the-box thinking, and the analysis incorporates the availability of finished-product inventory. More important, the entire manufacturing process also becomes an integral part of the supply review process from procurement through production, and including data on imports, outside purchases, and inputs from contract manufacturers.

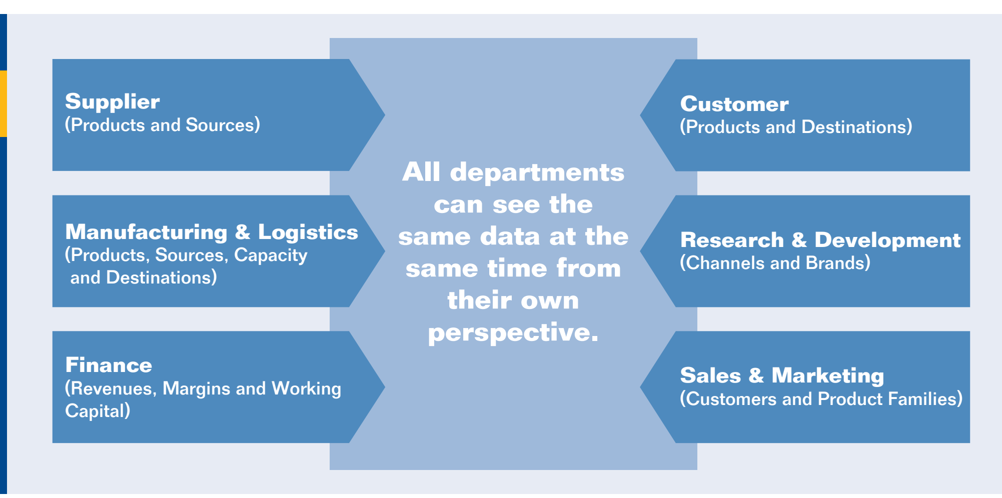
CREATING COMMUNICATION BETWEEN DEPARTMENTS

A growing understanding of the importance of S&OP has led to efforts to ensure that the process enables communication between different departments of the company. Randy Isdahl, supply planning manager for Brown-Forman, puts it this way: "One of the biggest benefits is the fact that the process has resulted in an open, unfettered conversation across all our Brown-Forman functional groups … the results are astonishing."

As a result of this inclusive conversation, finance members share their perspective in terms of revenues, margins, and working capital; marketing members talk in terms of channels and brands; and the manufacturing and logistics members bring their thinking on products, sources, capacity, and destinations (see Figure 2).

Figure 2

Differing Perspectives Among Stakeholders



David Sharp, supply chain process leader at ExxonMobil Chemical, remarks, “Because we’re working with a single [information] systems platform, the same information is available to everyone, allowing us to better align our supply plans with ExxonMobil Chemical’s worldwide business strategy. Also, the common systems platform makes it easier to transfer supply chain best practices around the world.”

The architects of these superior S&OP processes recognize that higher-quality decisions in less time require intelligent leveraging of today’s best information technology. Today, companies want decision support for scenario planning in addition to industry-specific capabilities and the capacity to include global market and supply chain requirements.

LOOKING TO THE PAST AND ENVISIONING THE FUTURE

These types of capabilities also allow a company to compare plan assumptions with actual results, so that future plans can be revised to be more effective. Procter & Gamble, for example, uses the results of the S&OP process to create more effective plans by looking backward and forward. First, a team evaluates a past plan: where the business went right, where it went wrong, and what needs to change. The teams compare current plans with historical trends and other data such as market size and consumption to determine if the assumptions of the new plan make sense.

AVOIDING RISK AND UNCERTAINTY

Companies often experience difficulties in foreseeing uncertainties in their supply chains. This can be disastrous in the long run. Figure 1 demonstrated how the process can easily get out of control at the end – creating a real traffic jam that could have been avoided through an effective S&OP process.

Increasingly, the best S&OP processes rely on software that allows all stakeholders to see the same data, at the same time, but each in their own terms. Software that supports S&OP integrates the data and information flow of the parts of the organization that will be relevant to the company’s need to manage risk and uncertainty. The company has access to the right data and insights to make smarter decisions across all participating functions (sales, marketing, procurement, manufacturing, distribution, and finance).

The most sophisticated software applications encompass scenario capabilities that allow a company’s senior executives to test their various assumptions about demand and supply in a virtual environment. They can also examine the impact of untried strategic and operational ideas for change. This type of process provides a global view of the business that allows supply, sales, marketing, and manufacturing to collaborate on a consistent basis to maximize customer satisfaction.

Most important, the right information technology can provide the contextual information necessary to maximize the impact of decisions on business value creation – to help increase profitability and achieve strategic goals. The company can adapt its actions to changing conditions without decreasing performance.

Dick Clark, the demand planning global process owner for Procter & Gamble, concurs that the company’s S&OP process has helped maximize resources to achieve better financial results. As he put it, “Our monthly S&OP meetings allocate and align company resources to a single set of sales and supply plans. Our goal is to optimize resources to support the company’s business objectives. This includes assessing the financial implications of the plan as well as its impact on supply and demand.”

DEFINING THE FIVE-STEP REVIEW PROCESS

A five-step review process is an integral part of the best S&OP because it structures the flow of collaboration and information sharing. It starts at the highest practical level of management business review, which is then reconciled with the lower-level product management, supply, and demand reviews. Brown-Forman, for example, implements both strategic and tactical supply chain planning processes because of the long time frames associated with wine and spirit production. The company's S&OP process creates an 18-month consensus forecast (most companies now create a 24-month plan) for demand planning, near-term inventory planning, and production planning and scheduling (see Figure 3). The following outlines in detail each of the steps in the process.

1. NEW PRODUCT REVIEW

In analyzing the feasibility of a new product, the company uses inputs from management and statistical analysis to align new product development and introduction with corporate financial and strategic goals. The analysis takes into account product life cycles, seasonal influences, promotions, and rebates and creates a multiperiod business plan.

The best new product review process rationalizes the information about customer needs with channel potential and ideas for new product offerings. But the process does not stop there. It analyzes the structure of supply chain costs and determines the need for facilities or capacity, facility consolidation or outsourcing, and the right set of key performance indicators.

2. DEMAND REVIEW

The purpose of each of the demand reviews is to lend an aspect of integration to a process that typically takes place in isolation. The demand review does not simply rely on quantitative forecasting, for example, but instead balances orders and demand through what-if analysis, achieving consensus among the various stakeholders all along the supply chain.

The best demand reviews not only ensure that the statistical forecast is based on the best data and model, including marketing assumptions, but also compare and incorporate sales and customer forecasts and include input from operations. The demand review also incorporates the results of the new product review, proposed promotions, and their demand impact. It incorporates real-time demand signals to monitor the plan assumptions and planning cycle so that demand can be adjusted accordingly.

Figure 3

An Integrated S&OP Process (Source: Oliver Wight Americas)

3. SUPPLY REVIEW

The supply review includes manufacturing capacity, inventory, procurement, and logistics planning. The supply review considers potential material shortages in the supply chain as well as the capacity for the company to develop excess inventory.

4. FINANCIAL RECONCILIATION REVIEW

At this point, the strategic S&OP process diverges from current business practice by creating a forward financial forecast of the previous three reviews. The supply and demand reviews are balanced by taking a close look at the product mix, conducting what-if analysis, filtering it through constraint management, and allocating supply to demand. Most important, all stakeholders in the process must reach consensus on the business and financial impact of the assumptions that have gone into the financial reconciliation.

The best financial reconciliation optimizes the supply chain to avoid problems down the line, and then compares the optimized supply chain plan to the demand plan. While the financial reconciliation makes certain that the S&OP plan hits targets for revenue and margin, it also considers whether the company's budgets remain consistent with the assumptions. The process validates potential demand spikes and supply disruptions, adds in forecasts for future financial profit and loss statements, and identifies gaps between the current S&OP and the company's future business plan.

5. MANAGEMENT EVALUATION AND ANALYSIS

At this point, management reviews the S&OP results and plans and compares assumptions, identifying any problems and their root causes.

The best management evaluation processes use a number of leading practices such as waterfall analyses of forecasts and supply plans and the precise measurement of actual demand to the demand plan. The analyses include profitability by customer, channel, product, and supplier, as well as backlog and lead-time trends. The management review also addresses any high-impact exceptions to the plan, such as perfect order, cash-to-cash, and asset performance.

TAKING S&OP TO THE NEXT LEVEL

Brown-Forman, ExxonMobil Chemical, and Procter & Gamble have all changed their approach to S&OP with world-class results. Perhaps the greatest testimony to the need for more sophisticated S&OP is a comment by Randy Isdahl of Brown-Forman: "We will extend [this new approach to] S&OP wherever business value can be enhanced by leveraging S&OP to maximize our supply chain effectiveness."

David Sharp of ExxonMobil Chemical maintains, "[S&OP] provides us with a multidimensional view of how the business is doing on a global basis." And Dick Clark of Procter & Gamble adds, "S&OP is the key process for information sharing within the business. It's helping us meet our goal of better business decisions through an improved mutual understanding of demand, supply, and financial information."

When more companies follow the lead of these three best-practice corporations, they will take their S&OP process to the next level – aligning their supply and demand, creating better internal coordination, and maximizing their global effectiveness.

ABOUT THE SOURCES

ABOUT SAP

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* SAP defines business software as comprising enterprise resource planning and related applications such as supply chain management, customer relationship management, product life-cycle management, and supplier relationship management.

ABOUT OLIVER WIGHT AMERICAS

Oliver Wight Americas is a global management consulting firm that specializes in helping manufacturing organizations to work smarter, faster, and better than their competitors. The firm includes leading business process improvement specialists who educate, coach, and mentor people to lead and sustain change on the journey to business excellence and outstanding business performance.

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