

# Market-driven S&OP

A Guidebook on How to Build a Market-driven S&OP Process

7/15/2012

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**Supply Chain Insights LLC** 

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#### Research

This independent research was 100% funded by <u>Supply Chain Insights</u> and is published using the principle of Open Content research.

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## **Disclosure**

Your trust is important to us. As such, we are open and transparent about our financial relationships and our research process.

## **Ecosystem Input**

The research for this report is based on one-on-one experiences in working with over eighty companies in the past three years. It is augmented by insights from three Supply Chain Insights quantitative research studies:

- Voice of the Supply Chain Leader. During the period of March-April 2012, data was collected from 61 respondents from over 40 companies to understand supply chain trends.
- Sales and Operations Planning Improves Agility. During the period March-April 2012, there were 117 supply chain respondents from over 50 companies to better understand the role of S&OP processes in driving supply chain agility.
- Supply Chain Big Data. Study data collected in the period of April-June 2012 from 53
  respondents from over 40 companies to gain insights on the role of big data in current
  and future supply chain processes.

These three studies allow us to triangulate the market. To maximize insights, we have validated the findings of the studies with supply chain leadership teams.

## **Executive Summary**

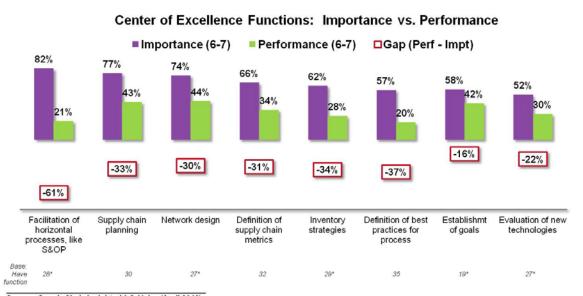
For manufacturers and retailers, supply chain is business. The Sales and Operations Planning (S&OP) process aligns the organization to the business strategy. As companies have become more global and face rising complexity, volatility and uncertainty, the importance of S&OP has increased. However, business complexity has created a gap between what companies have and what is needed. From our research, here we cite examples of these gaps:

- Commodity Prices Increasing. In 2011, 58% of the Fortune 100 companies list
  commodity pressures as a risk to earnings. Based on our one-to-one experience with
  companies, less than 2% of companies can look at market volatility within buy- and sellside markets and translate the impacts into a feasible S&OP plan.
- Risk is Higher. In 2011, based on analysis of annual reports, 65% percent of supply chains experienced a disruption. Yet, in our surveys, only 13% of companies feel that they can successfully tie S&OP planning to execution.
- Business Complexity is Growing. Eight years ago, companies had one S&OP process. Not so anymore.
   Today, on average, companies have five S&OP processes. In our research studies, 63% of companies report having more than one process.
- "The word 'supply chain' is so different for everyone in the company."
- Supply Chain Matters More than Ever. For most industries, growth is stalled (reference Supply Chain Insights Report, Building Market-driven Value Networks) and industry progress on inventory reduction and supply chain working capital is stagnating. As a result, supply chain excellence matters more now than ever.

  Director of Planning, Nestle
- Gap in Technology. Many companies have inherited technologies implemented over
  the past decade that focus on tight integration and less on optimization and decision
  support. For most, they are not adequate. Today, we find that 87% percent of companies
  are struggling with the integration of business planning and supply chain planning
  technologies. Only 8% of companies are satisfied with current modeling capabilities in
  their existing supply chain planning systems.
- Lack of Balance and Alignment. Today, based on a web survey of 40 companies, only 20% of supply chain leaders feel that they have balance today between sales and operations groups within the organization. Supply chains are more global and today, 77% of companies surveyed feel that they have a global supply chain. It is common when a company has a global supply chain for them to also have a supply chain center of excellence. In our research, 64% of companies have a supply chain center of

excellence. Despite the fact that S&OP processes were defined in the early 1980's, and are now over thirty-years old, the gap in importance versus performance in horizontal processes like S&OP is the highest of any effort in the organization.

Fig. 1 Importance versus Performance of Efforts within the Supply Chain Center of Excellence



Source: Supply Chain Insights, LLC, Voice (April 2012)
Base: Supply Chain Executives and have Center of Excellence & Particular Function (varies by function) "CAUTION: SMALL BASE SIZE
NOTE: Supplier Development is not shown because not enough respondents report it is a function of their supply chain center of excellence
010. For each of the following functions of the supply chain center of excellence, how important is it to your overall company? SCALE: 7=Extremely important—1=Not at all important; Q11. For these same functions, how would you rate your company's performance? SCALE: 7=Excellent—1=Poor

S&OP has grown in importance to power growth, improve resiliency and spur organizational efficiency improvements. This report is designed to help the supply chain team close these gaps. It is the first in a two-part series. This report outlines the trends, actions and maturity models. The second report helps you sort through available options to help you *Put Together the Pieces* to build a Market-driven S&OP Technology Platform. Since the appropriate selection of technology cannot be ascertained through a two-dimensional selection model, companies need to be well-grounded in where they are in process maturity before they begin to evaluate technology options.

## The Journey to Drive Excellence through S&OP

What is S&OP? It looks different at every company. No two processes are the same. While Sales and Operations Planning (S&OP) is defined by the Association of Production and Inventory Control Systems (APICS) as "A process to develop tactical plans that provide

management the ability to strategically direct its businesses to achieve competitive advantage on a continuous basis by integrating customer-focused marketing plans for new and existing products with the management of the supply chain ...," the implementation of this process is easier said than done. In this report, we share insights on how to build an S&OP process to better align the organization market-to-market to reduce risk and maximize opportunity.

"Why am I focused on the supply chain? The answer is simple. It is a barometer of my business. All the problems show up first in the supply chain...."

Michael Dell

**Dell** founder, chairman and CEO

To achieve this goal, companies need to adapt their supply chain processes to be market-driven. This is in stark contrast to the definition of traditional supply chain processes. The definition of a market-driven value network is: A market-driven value network is an adaptive supply chain that can quickly drive alignment within the organization market-to-market to improve value-based outcomes. These supply chain processes sense and translate market changes (buy- and sell-side markets) bidirectionally with near real-time data latency to better optimize and align sell, deliver, make and sourcing operations to the goal. The focus is on horizontal process orchestration. The redefinition of S&OP processes to be market-driven is a fundamental building block to a market-driven strategy.

#### The S&OP Evolution

The term S&OP is thirty years old. However, as supply chain processes have matured, it has been redefined. Today, companies are at five stages of maturity. They are: develop a feasible plan, match demand with supply, drive a profitable plan, become demand driven and drive a market-driven response. Each stage offers increasing opportunity and Return on Investment (ROI). However, moving from one step to another can often mean a redefining of the data model and data inputs.

While most companies just move from stage to stage in S&OP without deliberate alignment to a goal, this aimless wandering is a mistake. Each step of the S&OP maturity model has a different goal. The fastest progress is made when companies are deliberate and work the process

against a road map of improvement. Supply chain maturity in S&OP can be answered quickly by answering these five questions:

- 1) What is your S&OP goal?
- 2) How do you achieve the correct balance between demand and supply?
- 3) How do you make decisions?
- 4) How does your organization measure success?
- 5) How do you tie S&OP planning to execution?

While each stage of S&OP process maturity has a different process goal, based on our experience, over 75% of companies lack goal clarity and over 80% of companies are not clear on the definition of supply chain strategy, which undermines S&OP success. The definition of supply chain excellence should be a prerequisite for the formation of a team to work on S&OP. Frequently, cross-functional teams form with a different, often unexpressed, goal in mind. They

will each say "supply chain," but the term will have a very DIFFERENT meaning to each person. In these cases, the team will struggle for months—or years—to gain alignment.

### Stage 1:

#### Goal - Deliver a Feasible Plan.

The original S&OP processes originated with the goal of developing a feasible plan. Early evolution of the Advanced Planning Solution (APS) market enabled organizations to develop a forecast, visualize operational requirements and align metrics. The introduction of Theory of Constraints (TOC) in 1984, and the evolution of the concepts into manufacturing planning applications, enhanced this capability. It allowed organizations to

The most mature companies in the selection of S&OP processes can easily answer five questions:

- 1) What is your S&OP goal?
- 2) How do you achieve balance between demand and supply?
- 3) How do you make decisions?
- 4) How does your organization measure success?
- 5) How do you tie S&OP planning to execution?

identify constraints and build a feasible, or realistic, plan. Note that these models are very industry-specific. A conglomerate composed of process, discrete and apparel manufacturing may find that it needs multiple systems to model operations. Likewise, the building of a one-size-fits-all model by the ERP expansionists has delivered generic supply models that do not fit any company very well. This often results in tension between the CIO that wants to simplify the number of IT systems and the line of business user that wants modeling capability. We see the best results for companies when they absorb the higher IT expense and give the teams the

modeling tools they need. Depth of modeling is more important than tight integration to transactional systems for S&OP success.

With the resurgence of interest in S&OP, many companies forget that they MUST be sure that they have a feasible plan. IT IS a PREREQUISITE condition for subsequent phases.

**Greater Benefit Business-**Growth Sales Driven planning Driven Resilience Match Demand Maximize Efficiency with Supply Profitability Focus Inside Our Torhort Focus Outside **Market Driven** Manufacturing-**Demand Driven** Maximize Driven Maximize Opportunity and Deliver a Feasible Opportunity Mitigate Risk. Plan for Operations Sense and Orchestrate Match Demand Shape Demand with Supply Demand. Source: Supply Chain Insights, LLC, 2012 Market to Market

Fig. 2 Stages of Sales and Operations Maturity

### Stage 2:

#### Goal - Match Demand with Supply.

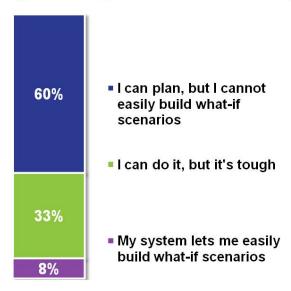
As organizations mature, teams need a solution with more advanced capabilities to model the trade-offs of volume and product mix. These trade-offs are complex. Through the use of technologies, companies are able to visualize and balance customer service and **assess** strategies and inventory plans to best match demand with supply. To meet this requirement, companies have invested in "what-if" modeling environments. Over the last ten years, these processes were augmented by inventory management specialist capabilities to evaluate multitier inventory analysis.

However, despite vast improvements in modeling technologies and computer visualization techniques, today, only 8% of companies are satisfied with their modeling capabilities. The

majority of companies have implemented systems without a clear design of "what-if" optimization and "discrete event-based simulation techniques." This is giving resurgence to investment in supply chain network design technologies like IBM, JDA, Llamasoft and OM Partners, and business process outsource service providers from Accenture, Chainalytics, Infosys, Genpact, Mu Sigma, S&V Management Consultants and WIPRO. In reference calls (when we call to ask users of software to share insights on the fit of the software for their business requirements), line of business users express the greatest satisfaction with focused niche providers with deep expertise.

Fig. 3 Current Company Satisfaction with What-if Modeling Capabilities





Source: Supply Chain Insights LLC, Agility Webinar (May 2012)
Base: Webinar Attendees – Total Answered (n=40)
How well can you plan and build scenarios to plan for agility today?

As companies mature, inventory optimization and the need for deeper analysis becomes more important. The focus shifts from solely looking at the "level" of inventory to evaluating the "form and function" of inventory. Providers of advanced inventory modeling technologies to analyze form and function of inventory include IBM, Logility, Smartops, SAS, Toolsgroup, and Terra Technology. These definitions are shown in table 1.

Table 1 Inventory Definitions

| Forms of Inventory                                 | Functions of Inventory                                 |
|--|--|
| Raw Material: The required materials as defined    | Cycle Stock: Inventory required to cycle through       |
| by the bill of material. In market-driven value    | production and distribution constraints to optimize    |
| networks, there is a need to tie alternate bill of | make, source and deliver.                              |
| materials to what-if simulation to make trade-     |  |
| offs on market to market volatility.               |  |
|  |  |
| Semi-finished Product: The determination of        | <b>Events:</b> Forward coverage of events: promotions, |
| the best form of product to store a unit based     | new product launch, and marketing programs.            |
| on postponement logic.                             |  |
|  |  |
| Finished Product: A shippable unit.                | Safety Stock: Inventory buffer for demand and          |
|  | supply volatility.                                     |

At this stage of maturity, companies realize that they need to be able to model inventory options, especially postponement, using iterative what-if modeling techniques. To accomplish this goal, the models of demand and supply need to be worked iteratively with those to determine the form and function of inventory. As shown in figure 4, the technology platform changes—to enable iterative what-if planning—evolve with each level of S&OP maturity.

Fig. 4 Change in Technology Platform

**Technology Platform Changes** 

| redifficient changes   |  |  |  |  |  |
|--|--|--|--|--|--|
| Platform   | Goal                                   | Characteristics  |  |  |  |
| DEMAND   | A feasible plan                        | Model the network     Recognize and respect constraints     Gain plan visibility                     |  |  |  |
| DEMAND SUPPLY SUPPLY   | Match demand<br>with supply            | <ul><li>What-if analysis</li><li>Multi-tier inventory analysis</li><li>Network design</li></ul>      |  |  |  |
| DEMAND SUPPLY NVENTORY   | Deliver<br>the most<br>profitable plan | <ul><li>Demand translation</li><li>Supply orchestration</li><li>Optimize financial drivers</li></ul> |  |  |  |
| FINANCE  FINANCE  DEMAND  DEMAND  TRANSLATION FLATFORM  INVENTORY                        | Demand-driven                          | Sense channel demand     Shape demand     Drive the most profitable response                         |  |  |  |
| FINANCE  FINANCE  DEMAND  DEMAND  TRANSLATION FULTION  INVENTORY  SUPPLY  MARKET SENSING | Market-driven                          | Sense buy- and sell-side market conditions     Bi-directionally orchestrate demand                   |  |  |  |

Source: Supply Chain Insights LLC

### Stage 3:

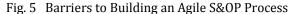
#### **Goal - Drive the Most Profitable Response.**

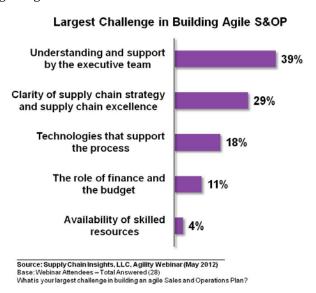
While stage 1 is supply-driven and stage 2 is sales/marketing-driven, stage 3 is business-planning-driven. This is commonly dubbed Integrated Business Planning (IBP). At this stage, it is critical to have a clear supply chain strategy and well-defined definition of supply chain excellence. For most, this is a gating factor for success.

Dirty data is a problem for all, and getting to financial data is difficult for all companies interviewed for this report. As a result, for most, the modeling of supply chain profitability is aspirational. If the data is available, to accomplish this modeling, the demand and supply hierarchies must be decoupled to enable volume/mix "what-if" trade-offs iteratively between demand, supply and inventory models.

One of the issues in this stage of S&OP is unit conversion. The average company will have five to seven definitions of "volume" that require translation. Additionally, to properly determine trade-offs the analysis needs to be calculated in "volume" not "currency." The organization starts to become bilingual to discuss issues in both currency and volume and the impact of changes in "product mix."

While many well-intended consultants preach executive involvement at this step of S&OP, one of the greatest barriers to success is executive understanding of the supply chain as a complex system. The second is clarity of supply chain strategy and the definition of supply chain excellence. This is not trivial. For most, the change management issues are immense and usually under-estimated.





Advanced financial modeling requires the augmentation of the S&OP process with specific financial modeling technologies. This includes technologies from **Acorn Systems**, **Equazion**, **Jonova**, **SAS**, **River Logic**, and **Tagetik**. Each technology is very specific, targeting a different financial modeling problem.

The buyer of technologies will quickly get frustrated speaking to providers in this area. The worlds of supply chain and financial modeling are worlds apart. Thought leaders from these two different areas speak different languages and very rarely understand the nuances of the two worlds. The focus for S&OP financial modeling can vary, but normally follows those in table 2.

Table 2 Forms of Financial Modeling

| Financial Modeling                        | Functions of Inventory   |  |  |
|---|--|--|--|
| Fixed versus Variable Costs               | As companies change fixed versus variable cost assumptions, financial modeling tools allow the modeling of what-if scenarios.  |  |  |
| Impacts on Working Capital                | As trading partner policies shift, financial modeling allows companies to take a closer look at the impact on working capital.   |  |  |
| Transfer Pricing and<br>Equivalent Units  | Multiple parties within the supply chain want to know the impact of a change on their plan. Visibility of financial modeling allows companies to see the impact of transfer pricing and in multiple units by role within the supply chain.       |  |  |
| Finished Product Levels<br>in the Channel | Increasingly, trading partners are seeking to do<br>multi-enterprise financial modeling to understand<br>how demand shaping, inventory strategies and<br>constrained supply will affect the plan. Financial<br>modeling enables this visibility. |  |  |
| Changes in Product Mix                    | As products are promoted in the channel, mix changes. These mix changes are modeled through financial modeling.  |  |  |
| Tax Efficient Supply Chains               | With the shifts in tax rules by commodity structures, financial modeling allows companies to see how shifts in network design based on tax laws affect inventory assumptions and supply capabilities.  |  |  |
| Margin on New Product<br>Launch           | As margin changes with product maturity, price management modeling within financial models allows companies to look at the shifts in margin.   |  |  |

## Sales & Operations Planning (S&OP) Case Study

Sonoco Products and Owens Illinois compete for market share in the delivery of packaging materials to the food manufacturing industry. Sonoco Products, a \$4.5B dollar company located in South Carolina, manufactures packaging film. The company has been on a six-year journey to become more demand-driven with a strong focus on Sales and Operations Planning (S&OP). The company is currently at Stage #3 in the S&OP model.

"To drive S&OP excellence, we need to be bilingual. Companies need to speak both the language of "volume" and "currency." "Currency" is the lingua franca for discussions with finance, but "volume" is necessary to determine the "feasible plan."

Pat Bower, Senior Director of Supply Chain Planning, Combe International

In contrast, **Owens Illinois (OI)**, a \$6.3B company, manufacturer of glass containers with US headquarters in Ohio, has been more focused on transactional efficiency, procurement and IT standardization.

This company has a more traditional definition of S&OP and is between stage 1 and 2 as outlined in this report. OI has had more inventory than their peer group for the past six years. In contrast, Sonoco Products has driven growth (with 65% less spending in R&D than OI), and managed inventories at better than peer group averages over the course of their S&OP transition. One of the keys to success for Sonoco Products is the early identification of opportunities to "sell available manufacturing capacity" in the channel through closer coordination with their upstream customers. In the words of Keith Holiday, Sonoco Products, "S&OP has been a strong contributor to the company's ability to drive growth while controlling inventories below peer group levels."

Days of Inventory 80.0 70.0 60.0 50.0 40.0 30.0 20.0 2007 2008 2009 2010 2011 Sonoco Products Owens Illinois Kimberly Clark International Paper — Crown Holdings Weyerhaeuser ····· Average

Fig. 6 Case Study Results Contrasting Sonoco Products and Owens Illinois

Table 3 Case Study Year Over Year Sales Growth

| Year over Year <b>Sales</b> | 2007   | 2008  | 2009    | 2010   | 2011   |
|-----------------------------|--------|-------|---------|--------|--------|
| Growth                      |        |       |         |        |        |
| Owens Illinois              | -1.62% | 3.26% | -11.78% | -0.29% | 10.93% |
| Sonoco Products             | 10.47% | 2.03% | -12.74% | 14.65% | 9.09%  |
| Average                     | 4.43%  | 2.64% | -12.26% | 7.18%  | 10.01% |

The next two maturity levels of S&OP are aspirational for most companies, but they are included for clarity and road map development.

## Stage 4:

### Goal - Build Demand-Driven Supply Chain Capabilities.

At this stage of S&OP, the process is designed from the outside-in. This requires a REDEFINITION and a REIMPLEMENTATION of MOST Advanced Planning Systems (APS). The focus is on product sell-through in the channel, whereas the earlier steps in S&OP maturity are focused on selling into the channel. This step requires a redefinition of the forecasting processes to sense market conditions based on channel demand signals and then shaping demand using technologies like price optimization; trade promotion planning; new-product launch plan alignment; and social, digital and mobile convergence. Demand sensing reduces the latency to see true channel demand, while demand shaping combines the techniques of price, promotion, sales and marketing incentives and new-product launch to increase demand lift. Examples of companies working at this stage of S&OP are Cisco Systems, General Mills,

Kimberly Clark, Procter & Gamble and Samsung. This S&OP maturity stage requires the addition of new capabilities: demand sensing, demand shaping, demand translation and supply orchestration. Demand sensing is the use of channel data to reduce the latency in order to sense actual market shifts, while demand shaping is the use of demand levers listed above to increase market demand. To understand the shifts in the market, companies have to get good at the process of modeling demand volume/mix trade-offs between demand (ship-to or channel demand) and supply (ship-from or supply architectures). This is termed demand translation. In

supply orchestration, channel trade-offs are determined and translated into buying strategies in commodity markets to determine the most effective formulation or platform design to schedule for manufacturing.

Most companies, as they mature, struggle with the concepts of baseline demand forecasting and the calculation of lift. This capability requires close attention to the basics of demand planning for a volume-based forecast using Forecast-value Added techniques. Demand shaping analytics are only effective on a volume-based analysis that is translated to currency. Underlying success is the modeling of a feasible supply plan. All too often, companies try to shape demand only to pay premium dollars for a promotion or new product launch that cannot be executed.

At Cisco Systems, the supply chain organization is called the Customer Value Chain Management organization (CVCM) for a reason. (They did not want it to be just about supply. Instead it is about value and delivering the right customer response.) The company runs a risk management engine of 4300 inputs with over 1000 simulations by ten planners each month.

In this stage, the focus is on horizontal process management outside-in from the channel to enterprise. The focus on technology selection and implementation is decreasing demand latency through the use of channel demand signals through demand sensing.

### Stage 5:

## **Goal - Orchestrate Through Market-driven Value Networks.**

The horizontal process understanding and technology development in stages 3 and 4 of S&OP model development are foundational to build market-driven value networks. The processes are

<sup>&</sup>lt;sup>1</sup> Mike Gilliland, The Business Forecasting Deal: Exposing Myths, Eliminating Bad Practices, Providing Practical Solutions, SAS and Wiley Business Series,

progressive and build on each other. The evolution of the technology portfolio as outlined in figure 4 helps companies to sense and shape demand and supply bidirectionally between sell-and buy-side markets. This process of bidirectional trade-offs between demand and a commodity market is termed demand orchestration. This capability allows companies to win in this new world of changing opportunities and supply constraints. It is especially relevant with the tightening of commodity markets. This stage is aspirational. It requires the redefinition of supply chain practices and the building of demand-driven concepts market-to-market.

Table 4 Change in Base Definitions of Sales and Operations Planning

| Letter | Stages 1-2                           | Stages 3-5   |  |  |  |  |
|--------|--------------------------------------|--|--|--|--|--|
| S      | Ask sales                            | Focus on market drivers:  Stage 3: Profitability  Stage 4: Demand  Stage 5: Demand and Supply  How do we best shape demand?  Stage 3: Internal control for profitability  Stage 4: Shaping  Stage 5: Market-to-Market Shaping  |  |  |  |  |
| &      | Direct<br>integration to<br>supply   | <ul> <li>Design of the value chain to optimize trade-offs</li> <li>Stage 3: Minimize risk, balance cycles and maximize opportunity for the enterprise</li> <li>Stage 4: Minimize risk, balance cycles and maximize channel opportunity</li> <li>Stage 5: Minimize risk, and balance cycles market-to-market</li> </ul> |  |  |  |  |
| ОР     | Operations:<br>Manufacturing<br>Plan | <ul> <li>Stage 3: Trade-offs between make, source and deliver based on enterprise data</li> <li>Stage 4: Trade-offs between make, source and deliver based on demand volatility</li> <li>Stage 5: Trade-offs between sales policies, sourcing policy, make, source and deliver market to market</li> </ul>             |  |  |  |  |

As the process matures, a subtle but important shift in the maturation of the S&OP process is the change of the data model in the optimization. It is the foundation of the Advanced Planning Solution (APS). This will often result in the reimplementation of the APS solution with a different focus and data model.

Table 5 Changes in the Definition of Demand Modeling in S&OP with Process Maturity

|  | Stage 1                   | Stage 2                    | Stage 3                  | Stage 4                  | Stage 5                  |
|--|---------------------------|----------------------------|--------------------------|--------------------------|--------------------------|
| Process Goal                           | Feasible Plan             | Match Demand with          | Integrate<br>Business    | Demand<br>Driven         | Market<br>Driven         |
|  | Ship from<br>Modeling:    | Supply Ship from Modeling: | Plans Ship to Modeling:  | Ship to<br>Modeling:     | Ship to<br>Modeling:     |
| Focus of the Demand Model              | What should manufacturing | What should manufacturing  | What is being sold       | What is being sold       | What is being sold       |
|  | make? What should I ship? | make? What should I ship?  | into the channel?        | into the channel?        | into the<br>channel?     |
| Focus of the<br>Replenishment<br>Model | Sell into the<br>Channel  | Sell into the<br>Channel   | Sell into the<br>Channel | Sell through the Channel | Sell through the Channel |
| Focus of the<br>Process Model          | Inside-out                | Inside-out                 | Inside-out               | Outside-in               | Outside-in               |

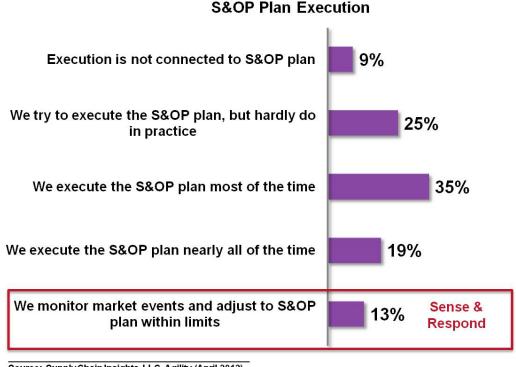
#### What does Good Look Like?

A good S&OP process is a meeting that executives cannot wait to attend. It is balanced and aligned to action. The goals are clear and there is a well-established set of metrics. The metrics are tied to continuous improvement programs. It is widely recognized by the organization as the "best way" to maximize opportunity and mitigate risk. The planning is closely tied to execution.

The five metrics that are recommended to drive alignment are: 1) customer service, 2) forecast error, 3) inventory/working capital, 4) profitability and 5) revenue. The greatest issues with balance occur when the process reports to either sales or manufacturing leadership and the metrics are not cross-functional.

For most organizations, the connection of planning to execution is an opportunity. In quantitative surveys, only 13% of companies responded that they were satisfied with the connection between S&OP planning and execution.

Fig. 7 Current State of S&OP Planning Tied to Execution



Source: Supply Chain Insights, LLC, Agility (April 2012)

Base: Supply Chain Executives and have a S&OP process (n=102)

Q25. After your S&OP plan is generated, how is it executed? Please pick the one that describes it best.

## Recommendations, Pitfalls and Roadblocks

While many companies focus on process and technology, the greater challenges are in the area of change management. To drive process maturity, companies need to overcome many barriers. Here we give our recommendations:

- Ownership and Reporting Relationships. Balance can only be achieved if the
  organization has shared metrics and if the leader is a profit-center manager. When
  this happens, companies can more easily align to a common goal. Organizational
  structure matters and will limit maturity. Organizations with S&OP reporting
  structures to sales or commercial organizations will never get out of stage 2; and
  organizations with reporting structures aligned to manufacturing will have difficulty
  moving past stage 1 of the S&OP maturity model.
  - Recommendation: Design the process with a clear owner based on goal.
- The Role of the Forecast. The forecast model changes throughout the stages of the S&OP process. It becomes more disciplined, granular and market-driven. As the organization matures, the organization deals more easily with uncertainty. They come to realize that it is not the number in the forecast, but the probability of the

number that matters. Companies that implement Forecast Value Added Analysis into continuous improvement programs make the fastest progress.

Recommendation: Design and implement continuous improvement programs for demand planning using Forecast Value Added Analysis.

• The Role of the Budget. Integration of the financial plan into the tactical operational plan is the number one change management issue for companies in tactical planning processes at Stages 2 & 3. One reason is that the words "budget" and "supply chain" are loaded terms. By definition, the financial budget is a static document in a dynamic world. For this reason, tight integration between financial and operational processes is NEVER recommended. It can be an input, but should never be a constraint in the S&OP process. Organizational training is critical to get past this obstacle.

Recommendation: Facilitate a common understanding for team members in the S&OP process on the terms "supply chain" and "budget".

- evolving, and it is a critical skill set for an effective S&OP process. One of the limiting factors for many organizations is supply chain planning talent. There are three issues: skills, job definition and turnover. While skills can be improved through training, companies will need to redefine the job descriptions for supply chain planners to give them more time to "plan" as the company matures through the S&OP maturity model. Additionally, with one in four demand planning jobs vacant, and a job shortage in emerging economies, companies need to plan for job turnover. Recommendation: Redesign planning job descriptions to allow planners more time to plan. Build contingency plans to ensure business process continuity with supply chain planning turnover.
- The Hoax of One Number Forecasting. A forecast is a hierarchy of numbers based on primary keys or attributes. In modern forecasting tools, there are multiple views, and representations of the forecast in multiple units of measure. There are also multiple forecasts in the organization (e.g., sales forecast, financial forecast, material forecast). Each forecasting process is built with a goal in mind; and as a result, the underlying context of the data is different. The multiple forecasts can be synchronized using a common set of assumptions, but the goal of tight integration or having "one number" hamstrings an organization. As a result, the promise of "one

number" is too simplistic. The goal should not be for one number; instead, the goal should be a common plan.

Recommendation: Focus on a common plan based on market drivers.

## Why does it Matter?

Each step in advancement of the S&OP process delivers incremental, positive business results. Companies reaching stage 2 of supply chain maturity in Sales and Operations Planning are able to drive an average improvement of 2% increase in growth and a 3% to 7% improvement in asset utilization. While many supply chain processes will improve one to two metrics, the benefits of improving S&OP maturity are pervasive, touching many metrics, and raising the bar of total performance.

## **About Supply Chain Insights LLC**

**Supply Chain Insights LLC (SCI)** is a research and advisory firm focused on helping supply chain teams improve value-based outcomes. The offerings include research-based Advisory Services, a Dedicated Supply Chain Community and Web-based Training. Formed in February 2012, the company helps technology providers and users of technologies gain first mover advantage.

### **About Lora Cecere**



Lora Cecere (twitter ID @Icecere) is the Founder of Supply Chain Insights

LLC and the author of popular enterprise software blog Supply Chain

Shaman currently read by 4500 supply chain professionals. Her book,

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With over eight years as a research analyst with **Altimeter Group**, **AMR Research**, **Gartner Group** and now as a Founder of Supply Chain Insights, Lora understands supply chain. She has worked with over 600 companies on their supply chain strategy and speaks at over 50

conferences a year on the evolution of supply chain processes and technologies. Her research is designed for the early adopter seeking first mover advantage.