Changing Mental Models: The Evolution of S&OP

**PRESENTERS:**
Lora Cecere, Founder of Supply Chain Insights
Jessie Chimni, Vice President and Chief Solutions Officer, Bristlecone

**MODERATOR:**
Trevor Miles, Vice President, Thought Leadership, Kinaxis
How did we get here?

Where do we need to go?
Much has changed in 25 years
Unprecedented time of global expansion

Middle-class consumers
(millions)

2010

2025

While the most mature markets remain important for consumer goods companies today, **by 2020 more than one-third of the world's spending will come from non-established markets.**

Sources: Organisation for Economic Co-operation and Development; A.T. Kearney analysis
Much has changed in 25 years
Cloud, Social, Mobile, Internet-of-Things, …

http://www.holyrood.com/2012/12/briefing-11/
Changing Mental Model

IF I HAD ASKED MY CUSTOMERS WHAT THEY WANTED, THEY WOULD HAVE SAID A FASTER HORSE.

- Henry Ford
Who is Lora Cecere?

- Founder of **Supply Chain Insights**
- Partner at **Altimeter Group** (leader in open research)
- 7 years of Management Experience leading Analyst Teams at **Gartner** and **AMR Research**
- 8 years Experience in Marketing and Selling Supply Chain Software at **Descartes Systems Group** and **Manugistics** (now JDA)
- 15 Years Leading teams in Manufacturing and Distribution operations for **Clorox**, **Kraft/General Foods**, **Nestle/Dreyers Grand Ice Cream** and **Procter & Gamble**.
Who is Jessie Chimni?

- VP and **Chief Solutions Officer** at Bristlecone
- Jessie has over 24 years of experience in the areas of **supply chain management** and business intelligence processes and solutions, particularly in the **High-Tech, Semiconductor and CPG industries**.
- He is developing the Bristlecone’s “**Next Generation**” **service offerings** for the company.
- Jessie has written a number of articles on Supply Chain Management and co-authored a book on **Demand Management**.
- He spent 11 years at organizations like **Nestle** and **KPMG**, in various supply chain roles.
Changing Mental Models
## Changing Mental Models

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand and supply matching</td>
<td>Data-driven discussions on trade-offs of volume, mix, and costs</td>
</tr>
<tr>
<td>Inside-out</td>
<td>Outside-in</td>
</tr>
<tr>
<td>Functional silos</td>
<td>Organizational metrics alignment</td>
</tr>
</tbody>
</table>
Evolution

At each stage of S&OP Maturity, ask the question:

1. What is the goal?
2. What should we measure?
3. What defines success?
Background: Raising the Potential of The Supply Chain Effective Frontier
Functional Metrics

Conflicting Objectives

**SOURCING**
- Stable volume
- Large quantities
- Large leadtime

**MANUFACTURING**
- Long runs
- Stable volume
- High buffer inventory (RM/FG)

**LOGISTICS**
- Warehousing
  - Less inventory
  - Smooth flow
  - Less SKUs
- Transportation
  - Full Truck Load

**SALES / CUSTOMER SERVICE**
- Availability
- Flexibility
- Responsiveness (order cycle time)
The Change Management Journey

**PROGRAM**
A set of metrics focused on project or program objectives. Organization has many disconnected projects.

**FUNCTIONAL**
Individual functions set goals independently.

**ALIGNED**
Goals are aligned from end-to-end and from bottom to top. When companies are aligned there is strength in year-over-year performance.

**BALANCED**
A portfolio of metrics aligned to improve a business strategy and outcome like market capitalization or free cash flow.

**RESILIENT**
Continuous improvement in a portfolio of metrics despite market shifts. Organization is able to continuously improve market performance.

**Metrics Maturity**
## S&OP Barriers

<table>
<thead>
<tr>
<th>LEVEL:</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal</strong></td>
<td>Build a Feasible Plan</td>
<td>Match Demand and Supply</td>
<td>Maximize Profitability</td>
<td>Maximize Opportunity and Mitigate Risk</td>
<td>Maximize Opportunity and Mitigate Risk Market to Market</td>
</tr>
<tr>
<td><strong>Driver</strong></td>
<td>Supply Driven</td>
<td>Supply Driven</td>
<td>Business Driven</td>
<td>Demand Driven</td>
<td>Market Driven</td>
</tr>
</tbody>
</table>

### Change Management Issues

- **Role of the Budget**
- Moving from Measuring and Tracking Volume to Analyzing Profitability
- Visualization and What-if Analysis Capabilities in Current Applications
- Moving From Inside-out to Outside-in
## Common Practice vs. Market-driven Focus

<table>
<thead>
<tr>
<th></th>
<th>Common Practice</th>
<th>Market-driven Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Ask sales</td>
<td>Focus on market drivers: How do we best shape demand?</td>
</tr>
<tr>
<td>&amp;</td>
<td>Direct integration to supply</td>
<td>Design of the value chain to optimize trade-offs, minimize risk, balance cycles, and orchestrate demand</td>
</tr>
<tr>
<td>OP</td>
<td>Manufacturing plan</td>
<td>Trade-offs between make, source and deliver</td>
</tr>
</tbody>
</table>
## Form & Function of Inventory

<table>
<thead>
<tr>
<th>Form of Inventory</th>
<th>Function of Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw</td>
<td>Cycle Stock</td>
</tr>
<tr>
<td>Semi-finished Goods</td>
<td>Safety Stock</td>
</tr>
<tr>
<td>Finished Goods</td>
<td>In-transit Inventories</td>
</tr>
<tr>
<td>Returned Inventories</td>
<td>Seasonal Builds</td>
</tr>
<tr>
<td>Slow and obsolete</td>
<td>Promotional Inventories</td>
</tr>
<tr>
<td></td>
<td>Risk Hedging</td>
</tr>
<tr>
<td></td>
<td>New Product Launch Builds</td>
</tr>
</tbody>
</table>
S&OP Balance

Current S&OP Balance

- Big S and little op: 39%
- We are balanced: 20%
- Big OP and little S: 41%

Source: Supply Chain Insights, LLC. Agility Webinar (May 2012)
Base: Webinar Attendees – Total Answered (n=41)
How balanced is your Sales and Operations Process?
Having a Supply Chain Center of Excellence Improves Organizational Alignment

37% of respondents have a supply chain center of excellence

but only, 56% of them rate themselves as successful in managing their centers of excellence

3X Those with a supply chain center of excellence have 3X higher alignment between marketing and finance
Mature Sales and Operations Planning

- 80% Have S&OP Processes
- 66% Have More Than One Process
- 40% Rate Themselves Mature on these Processes
- 2X Better Agility
- 46% Better Cross-Functional Alignment

When they do, they have:
Metrics: Focus on Balance

• Revenue
• Profitability
• Inventory (DOI or Inventory turns)
• Customer Service (case fill or perfect order)
• Forecast Accuracy
Quotes from Recent Interviews

• “I wish that we could talk about forecast error without having to feel like we need an apology…”

• “We need a balanced scorecard not an encyclopedia of metrics…”

• “The metrics need to align around value…like I was trained in my Bonsai class, let the tree show you the way…”

• “Every industry has their own iron triangle that defines supply chain potential. Customer service is always in the middle…”
Wrap-up

• S&OP has grown in importance.
• The trade-offs of the supply chain cannot be effectively modeled using a spreadsheet.
• Each stage must be built with the goal in mind.
• Focus on continuous improvement and serving the business.
• It matters. S&OP drives balance, agility, alignment and resilience.
Changing Mental Models
Agenda

- S&OP Solution Maturity Model
- Solution Comparisons
- Summary

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Changing Landscape

**Processing power**
- Apollo 11 had less processing power than iPhone 3G
- Cray-2, the world's fastest super computer between 1985 & 89 has just 2 GB RAM

**Companies that didn’t exist 10 years ago**
- Netflix
- Twitter
- 2 Billion Company created over a weekend
- iPhone business is bigger than Boeing, P&G...

**Communications**
- 50 billion messages per day
- Google
- Almost 6 billion searches a day
- Mobile Phone users
  - China – 1.2 billion
  - India – 0.9 billion

Velocity of change in technology & business has been exponential!
Advancements in S&OP Vs Technology

While the technology advanced rapidly, S&OP:
- Remained stagnant over the last 25 yrs
- Historically S&OP was treated as a process, that did not need systems enablement
- S&OP & tactical planning processes are disconnected

Advancements in S&OP have failed to keep pace with technology and business needs.

While S&OP itself lagged in development, adoption rate has been low as well.
Companies still use Excel as a simulation solution of choice.

### Technological Advancements and Implications

<table>
<thead>
<tr>
<th>Technological Change</th>
<th>Implications</th>
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<tbody>
<tr>
<td>Common Data Model</td>
<td>Common planning Hierarchies</td>
</tr>
<tr>
<td>Synchronization across planning levels</td>
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</tr>
<tr>
<td>Speed of computation</td>
<td>Quick what if analysis</td>
</tr>
<tr>
<td>Usability</td>
<td>Easy of use</td>
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Fast Computation

Advanced scenario planning
- Response to supply chain disruptions
  - Customer cancelling orders
  - Raw material sourcing disruptions
  - Manufacturing facility disruptions
- Measure actions against financial & supply chain targets
- Scenario comparison

Trade off analysis among scenarios

Same planning hierarchies for S&OP & Tactical planning (Common Data Model)

Development of a feasible plan for tactical planning

Basic Scenario Planning
- Volume mix planning
- Revenue mix planning
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# Comparison: Common planning Hierarchies

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<thead>
<tr>
<th></th>
<th>Customer A</th>
<th>Customer B</th>
</tr>
</thead>
<tbody>
<tr>
<td>APS solution used for S&amp;OP. Simple data model</td>
<td>~ 2-4 hrs</td>
<td>&lt; 5 min</td>
</tr>
<tr>
<td>Advanced simulation soln. used for S&amp;OP</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Development of a feasible plan                                  |            |            |
| Basic Scenario Planning                                         | < 5 min    |            |
| Volume mix planning                                             |            |            |
| Revenue mix planning                                            |            |            |
| Common hierarchies for S&OP and Tactical planning               | < 5 min    |            |
| Trade off analysis/Scenario comparisons                         | < 5 min    |            |
| Advanced scenario planning                                      | < 5 min    |            |
| Response to supply chain disruptions                            |            |            |
| • Large customer cancelling orders                              | < 5 min    |            |
| • Raw material sourcing disruptions                              |            |            |
| • Manufacturing facility /supply chain disruptions               |            |            |

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## Comparison: Different Planning Hierarchies

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<td>and Tactical planning</td>
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Summary

Changes in business continue to accelerate

Current methods of planning and responding to changes need to evolve

Planning processes need to evolve so that the S&OP and Tactical planning process are connected

Solutions are available to address common business requirements