Implementing S&OP using currently available SAP applications

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S&OP Overview
SAP Application Support
Challenges
What might it look like?
Conclusion
Learning Points

Get to know what applications help support the S&OP process

See example data flows

Identify challenges in the current solution

See example screens for the S&OP process
All five steps of the process are integrated

1. Strategic Planning
   - Market Planning
   - New Product Planning
   - Resource Planning
   - Alignment to Corporate Goals
   - Margin Management

2. Demand Planning
   - Quantitative Forecasting
   - Sales, Marketing Input
   - What-if Analysis
   - Orders/Demand Balancing
   - Consensus

3. Supply Planning
   - Capacity Planning
   - Inventory Planning
   - Procurement Planning
   - Logistics

4. Supply/Demand Balancing
   - Product Mix
   - Constraint Management
   - What-if Analysis
   - Allocation of Demand to Supply
   - Consensus

5. Management
   - Evaluation & Analysis
     - KPI Measurement
     - Plan vs. Actual
     - Forecast error
     - Root Cause Analysis

SAP View: Fully Integrated, Closed-Loop Process
### S&OP Adds Value

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<th></th>
<th>Class</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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<td>13%</td>
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<td>Productivity</td>
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<td>21%</td>
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</tbody>
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Source: [Oliver Wight](http://www.oliverwight.com)
The Same Data, But from Different Perspectives

All departments can see the same data at the same time

- Marketing
- Finance
- Sales
- Manufacturing & Logistics

- Channels and Brands
- Customers and Product Families
- Revenues, Margins & Working Capital
- Products, Sources, Capacity & Destinations

The Same Data, But from Different Perspectives
Major Process Steps Supported by SAP Software

1. Strategic Planning
   - Strategic Enterprise Management (SEM)
   - Business Intelligence - Business Warehouse – Business Planning & Simulation (BW – BPS)
   - BW – CRM Analytics
   - Pricing and Margin Management (Vendavo®)

2. Demand Planning
   - APO Demand Planning (DP)
   - Supply Chain Event Management (SCEM)

3. Supply Planning
   - APO Supply Network Planning (SNP)
   - Supply Chain Event Management (SCEM)
   - Supply Network Collaboration (Inventory Collaboration Hub – ICH)

4. Supply/Demand Balancing
   - APO Demand Planning (DP)
   - APO Supply Network Planning (SNP)

5. Management Evaluation & Analysis
   - Supply Chain Analytics and Visibility (Supply Chain Performance Management – SCPM)
   - APO Demand Planning (DP)
   - Event Management (SCEM)
5. Management Evaluation & Analysis
   - APO DP
   - SCPM

4. Supply/Demand Balancing
   - APO DP

1. Strategic Planning
   - SEM
   - CRM

2. Demand Planning
   - APO DP

3. Supply Planning
   - APO SNP
System Attributes: SEM

Typically used for Financially oriented planning

Plan not done at Product Level

Both Currency and Units may be needed

Needs a basis to disaggregate to Product level to interact with Demand Planning
System Attributes: CRM

Sales Planning (Currency)

Promotion Planning

- Base from DP
- Lift sent to DP
System Attributes: APO DP

- Produces Unit Demand Plan
- Consolidate Sales Plan, Budget, Marketing Plan
- Promotions available from CRM
- Clearinghouse for data in S&OP process
- Flexible views for all aspects of S&OP process
System Attributes: APO SNP

Create Production and Procurement plans

Uses Demand Plan from APO DP

Rough Cut Capacity Planning

Ability to have separate version for S&OP process
Reporting

Support for Supply Chain Analytics

Visual Composer (as of BW 3.5)
System Attributes: SEM

Typically used for Financially oriented planning

Plan not done at Product Level

Both Currency and Units may be needed

Needs a basis to disaggregate to Product level to interact with Demand Planning
Basic Data Flow

CRM → SNP → DP

SNP ← DP ← SEM/BW
SEM/BW and DP interaction

Forecast at Product Level
- Price
- Forecast Revenue
- Supply Plan

Budget at Product Level
- Currency
- Convert to Units in DP

SEM/BW

→

DP

→
CRM and DP Interaction

- Promotion Lift
- Sales Plan
  - Currency
  - Convert to Units in DP

Promotion Base

CRM

DP
DP and SNP Interaction

Supply Plan
- Production
- Procurement

Demand Plan
- Adjusted for Marketing and Sales Plans

SNP

DP
Challenges in the current environment

- Data Mapping
- New Resources
- New Locations
- New Products
- Versions in SNP
- Job Streams
SEM-DP Data Mapping

No Product in SEM

Need Unit to Currency conversion done (DP)

May have additional characteristics in SEM or DP
  - Need Update Rules when passing data

Dummy products may be included in SEM plan
New Products - DP

**Dummy Products**
- Need additional Char. Combinations
- Need Product Master data if need for Lifecycle Planning
- Can not map to SNP

**Increase existing products**
- Need separate key figure for Demand Plan
- Loss of visibility and may overstate a Product or Product Group
New Locations/Resources - SNP

Need to employ version specific master data (Resource, PPM, Location)

Must manually create additional master data objects and add to model

Additional Model in SNP

High maintenance cost for additional master data
Version Management

Additional Key Figure in DP

Additional Version in SNP
- Use tcode /SAPAPO/VERCOP to get snapshot of current order data
- Need to copy order categories that are relevant to your process
Basic Jobs

Calculate Revenue from DP forecast
Extract Unit and Revenue plan from DP to SEM/BW
Extract Revenue Plan from SEM/BW to DP (Separate Key figure)
Extract Sales Plan from CRM
Calculate Unit Plan from Revenue Plan (SEM and CRM)
Pass Demand Plan Key figure to SNP
SNP solver (including Capacity Leveling if needed)
Pass SNP plan to DP
Calculate KPIs for display in DP or extract to BW
Extract plans and KPIs from DP to BW for Reporting
We have already been through the demand planning process of anticipating market requirements from all of the best perspectives (sales, marketing, customer, quantitative, etc.). Here we are looking at the supply picture and automatically highlighting issues that need to be addressed, relative to various demand scenarios (expected forecast, high side forecast and another simulation forecast).
The data in APO can be directly read by BW to create information in other formats.
And quickly view the contribution margin of the three demand scenarios.
Or, the high level forecast by plant or any other selection of data that puts it in the terms of the relevant S&OP stakeholder.
And, quickly graphed the impact on contribution margin.
S&OP Overview

SAP Application Support

Challenges

What might it look like?

Conclusion
**Key Learnings**

Current SAP applications can support the S&OP process

New products/locations/resources can be included in the plan – but will require extra master data maintenance

Example data flow

Challenges with using current applications

There is no facility for tracking the S&OP process in current applications

Note: for additional S&OP information see session 4410 on Wednesday
Thank you for participating. Please remember to complete and return your evaluation form following this session.

For ongoing education on this area of focus, visit the Year-Round Community page at www.asug.com/yrc