Sales & Operations Planning (S&OP) – a major driver in maximizing business profitability?

An investigation of S&OP maturity levels in the process industries
In this study

Introduction – Challenges, Value Drivers and Definition .................. 3

I. Part 1: Motivation – Importance of integrated S&OP and Survey Participation ..................................... 4

II. Part 2: Maturity – Elements of S&OP Process Maturity and Survey Results ....................................... 7

III. Part 3: Benefits – Success Factors, Trends and Future Challenges ............................................................ 9

IV. Conclusions and Recommendations ...................12

Disclaimer and Contact ......................................................14

Figures

Figure 1: S&OP Integrates Demand and Supply Management ...........................................4
Figure 2: Participants by industry sectors and countries .........................................................4
Figure 3: Annual turnover and profit of participating companies ..................................5
Figure 4: Planning scope and characteristics .....................................................................5
Figure 5: Number of years working with S&OP ...............................................................6
Figure 6: (Sub-) Dimensions of S&OP Maturity Model ....................................................7
Figure 7: Overview S&OP Maturity Model ...............................................................7
Figure 8: Industry Average Maturity ..............................................................................8
Figure 9: Main Findings of the Survey ............................................................................8
Figure 10: Success Factors to Improve S&OP .................................................................9
Figure 11: Value Drivers of S&OP .................................................................................9
Figure 12: S&OP Value Drivers Ranking .....................................................................10
Figure 13: Challenges in Future Planning Complexity ..................................................11
Figure 14: Trends and challenges impacting S&OP ..........................................................11
Figure 15: Three Phases to S&OP Improvement ..................................................13
Introduction – Challenges, Value Drivers and Definition

Globalized markets with continuingly high dynamics characterize the current environment of process industry companies international business activities. Price and innovation pressures require increasingly flexible and customer oriented value chains which embed in an environment of shorter economic cycles.

Resulting market volatilities require an ever increasing capability of underlying business models and processes to quickly change and adapt. Consequently the challenges for a consistently efficient and effective Supply Chain Management are multi-faceted and complex. In this context the delivery capability and quality of an organization are significantly influenced by the ability to create an integrated operating plan, i.e. to effectively align demand and supply. The quality of this operating plan results from a mature and integrated Sales & Operations Planning (S&OP) process and enables a supply chain organization to meet the increasing requirements value chains are facing, thus directly creating a competitive advantage.

With regard to supply chain planning and execution, six trends in business transformation are currently visible with a direct reciprocal influence on the S&OP process, which allows companies to act in the sense of “more, faster and better”: customer orientation, process orientation, end-to-end chain management, pull orientation, supply chain collaboration and information and inventory management. These trends are at the core of the presented survey results on Sales and Operations Planning, aiming at identifying

1. the process maturity level of S&OP within process industries (Part 2),
2. areas with optimization potential for S&OP (Part 2),
3. future challenges in Supply Chain planning and S&OP (Part 3).

The study highlights the outstanding role of a company-wide integrated Sales & Operations Planning process as a driver for sustainability, customer orientation and profit maximization. Therefore S&OP is an increasingly important element of strategic and operational corporate management. It is of particular interest to senior management functions and not limited to the company’s internal processes alone. In addition it is a central element of the cross corporate collaboration and alignment process within an end-to-end supply chain perspective. S&OP thus becomes the enabler for adaptive planning of demands, sales and resources and provides the foundation for successfully coping with the dynamic and continually changing future market environments.
I. Part 1: Motivation – Importance of integrated S&OP and Survey Participation

The challenges and trends impacting Supply Chain Management, as described, highlight the importance of integrated operational planning, as depicted in Figure 1, in achieving lasting excellence in company performance. The focus of the investigation lies on the maturity assessment of high level Supply Chain planning (i.e. S&OP), meaning the integration of Demand and Supply Management to ensure that the organization marches in the right direction and works to one aligned operating plan. A detailed and in depth analysis of demand and supply management processes is not part of the investigation.

S&OP directly addresses many of the most pressing requirements and complexities Supply Chains are dealing with today. The introduction or improvement of this central process can, therefore, be considered as a suitable means for becoming fit in dealing with the six trends in business transformation described before.

FIGURE 1: S&OP INTEGRATES DEMAND AND SUPPLY MANAGEMENT

The focus of this online survey, conducted between July and December 2012, is specifically on companies across different process industries as highlighted in Figure 2.

FIGURE 2: PARTICIPANTS BY INDUSTRY SECTORS AND COUNTRIES
This industry focus enables the consideration of the unique characteristics of business models and resulting requirements on operational planning in this sector, ensuring the better comparability of survey feedback. Increasing focus on quality and premium price segment, high asset intensity requiring high utilization of machines, co-production in integrated production structures, high attention to regulatory and environmental aspects, mainly B2B-sales – all examples of elements of process industry business characteristics – have a close interrelation with how planning processes and parameters need to be defined. Participating companies come from various segments and have their headquarters located in many different companies across Europe as shown in Figure 2. A strong focus was on chemical and pharmaceutical clients with their headquarters in Germany. The functions addressed came mainly from the Supply Chain and Operations Management areas.

Throughout the survey, representatives from all sizes of companies participated as shown in Figure 3. Planning complexity was characterized by more than half of the respondents by demand patterns with high variability or seasonality. Roughly half of the respondents consider supply uncertainty as an issue. Differentiation by quality was named the main factor in market positioning followed by innovation. The dominant order fulfilment strategy with 70 per cent response rate was make-to-order.

Looking at the planning scope and characteristics as described in Figure 4 the survey showed that almost 40 per cent of the participants manage more than 700 SKUs in their S&OP plans. They produce those predominantly make-to-stock (70 per cent) in more than six production sites globally. Typical demand patterns show for almost three quarters some variability or seasonality.
Considering the surrounding influencing factors, the importance of the topic and the fact that current market conditions have persisted for quite some time, we found it surprising to see that almost three quarters (72 per cent) of the responding companies have only started working with S&OP within the last five years, as shown in Figure 5. This is despite the fact that the concept has been trending for almost 20 years already.

**FIGURE 5: NUMBER OF YEARS WORKING WITH S&OP**

The concept of integrated S&OP is easy to understand, but typically involves major changes of mindset across different functions and in the leadership of the organization and is, therefore, rather difficult to implement successfully. This fact together with the short introduction timeframe suggests that many companies still have benefits to leverage in this field with respect to further organizational development towards improved collaboration and cross-functional alignment.
II. Part 2: Maturity – Elements of S&OP -
Process Maturity and Survey Results

1. Elements of S&OP Process Maturity

S&OP process quality is defined as how efficiently the process is organized to deliver
effective results by aligning people across the organization to provide a decision basis
founded on accurate planning data. To evaluate this, BearingPoint makes use of a
comprehensive maturity model, which is documented, together with reference
processes, assessment tools and methods, in its Business Transformation Framework
database. The model comprises four main dimensions and 11 sub dimensions as
shown in Figure 6.

**FIGURE 6: (SUB-) DIMENSIONS OF S&OP MATURITY MODEL**

Characteristics of each dimension are described with respect to their maturity towards
a leading practice process. In total six maturity levels from “undeveloped” to
“proactive” are used to evaluate the individual and industry average performance as
well as to highlight specific areas for improvement – see Figure 7.

**FIGURE 7: OVERVIEW S&OP MATURITY MODEL**

Evaluation of process maturity
in four dimensions creates
transparency on strengths and
weaknesses

Six maturity levels describe
relevant process characteristics
2. Survey Results

The survey questions and findings were structured around the four dimensions of the maturity model as shown in Figure 6. One main target of the study was to identify an average industry process maturity. This was found to be in the “consistent” category as shown in Figure 8.

The consistent category, as a range somewhat above average on the maturity ladder, indicates that many of the responding companies have established a well organized S&OP process already. Many companies have recognized the benefits of accurately defining planning policies and parameters. Planning meetings also seem to be efficiently prepared and announced on an annual planning calendar. Overall process formalization, as well as the scope of SKUs included in planning, is considered to be adequate and the roles and responsibilities of persons involved in the process appear to be properly described in many cases.

FIGURE 8: INDUSTRY AVERAGE MATURITY

However, the study also revealed some areas with room for improvement in many of the companies. These weak spots in the S&OP process are again clustered per dimension: the biggest weaknesses were identified as in the supporting IT-systems and a lack of S&OP integration to risk management, to the Finance function as well as to Supply Chain partners. In addition, top-management sponsorship and endorsement of the process was considered to be comparatively low. This fact is accompanied and potentially amplified by some evidence of a lack of exception focus and pre-S&OP alignment on the operational level. Despite the fact that more than half of the respondents stated that they are somewhat content with the organization and execution of the S&OP meetings, there appears to be too broad a focus in many meetings, leading to less acceptance at an executive level.

A summary of the main findings for each dimension is shown in Figure 9.

FIGURE 9: MAIN FINDINGS OF THE SURVEY

- Stronger link between supply chain risk management and S&OP as well as more forward orientation and scenario evaluation is required
- Alignment in S&OP processes remains mostly within the company operations – the link to finance and business partners is not emphasized enough
- Information preparation and sharing is considered to be efficient with some room for improvement – especially relating to external Supply Chain partners
- Creating a company-wide closed-loop control mechanism to improve decision making based on monitoring a few relevant KPIs is still a challenge for many companies
- Description and adherence to roles and responsibilities seems to be adequate in many companies – the leadership involvement appears rather low
- In general, the understanding of S&OP is considered to be good – however top management sponsorship is only fully present in a small number of companies
- Compared to other dimensions, IT system support seems to leave the biggest room for improvement, especially in terms of usability, integration and scenario modeling
- Master data definition is consistent in many companies, however data accuracy is, in many cases, not considered to be sufficient
III. Part 3: Benefits – Success Factors, Trends and Future Challenges

Evaluation of the survey results and findings showed that four main areas for S&OP process improvements could be identified – see Figure 10. Central process governance is required to ensure that the process is sustainably implemented and continuously executed in the way intended. The improvements in collaboration with other functions are essential as today's integrated production networks require, more than ever, a close interaction within the company and across its borders. Transparency, of course, is necessary to have control over the business and the process itself. The data required to develop and evaluate individual plans comes from different areas of the business and potentially different systems. Therefore, this gathering of data needs to be empowered by an integrated IT-system landscape.

**FIGURE 10: SUCCESS FACTORS TO IMPROVE S&OP**

- **Strategic Process Governance**
  - Improve alignment to business strategy – set a clear direction
  - Increase top management involvement
  - Focus more on exceptions throughout process
  - Communicate and update planning parameters/rules more timely

- **Network Collaboration**
  - Avoid and fight silo mentality – ensure better seamless communication and alignment across the organization
  - Involve other functions more, e.g. finance
  - Exchange information more frequently with external Supply Chain partners
  - Link closer with R&D departments to consider „new product introductions“

- **Measurement and Transparency**
  - Link individual performance to the quality of the plan more closely
  - Sustainably ensure performance and comparability by introducing an aligned set of metrics
  - Make trade-offs clear and transparent
  - Allow an early detection of market changes

- **IT-System Support**
  - Increase system integration to create a solid data basis
  - Increase level of automation (e.g. APS)
  - Evaluate scenario modeling benefits
  - Increase speed and usability to drive acceptance
  - Further harmonize master data

Improving S&OP as a core business process has a significant impact on value drivers as shown in the value driver tree in Figure 11. Therefore, even companies that have been working with S&OP for a number of years already should revisit the topic and make sure that their structures and defined rules are in place as originally intended. A correlation analysis between company profitability and S&OP maturity showed significant results.

**FIGURE 11: VALUE DRIVERS OF S&OP**

- **Main process improvement areas are strategic governance, network collaboration, measurement & transparency and IT-system support**

  **Fast fact**

  Improving S&OP as a core business process has a significant impact on value drivers
Improved planning enables you to...

- ... reduce cost of capital by replacing inventory by information
- ... reduce fixed and variable costs by working smarter not harder
- ... increase revenue and customer satisfaction while reducing costs at the same time
- ... increase collaboration across the supply chain
- ... manage a cross-functional process
- ... ensure that operation marches in one direction

The surveyed companies are largely aware of the positive impact on the drivers and the value creation of a performing S&OP process as the rate of agreement to many of the given examples was high, as shown in Figure 12. The increase in forecast accuracy is the most evident benefit, followed by a reduction in inventory levels and an increase in customer satisfaction and capacity utilization.

**FIGURE 12: S&OP VALUE DRIVERS RANKING**

In addition to improvements in financial figures and customer satisfaction, S&OP helps to address many of the upcoming challenges companies are facing. A selection of challenges and the rate of agreement to their importance is shown in Figure 13. Globalization is considered to be the biggest influential factor on planning complexity in the future, followed by changes in corporate structures caused by outsourcing or mergers and acquisitions.
The high rate of agreement to the impact of challenges from persisting trends, as shown, suggests the continuing, prevailing or even growing importance of good S&OP processes in the future. This perception is confirmed by the number of additional trends and challenges the surveyed companies named in the fields of general/environmental, market and customer driven impacts as highlighted in Figure 14, e.g. financial crisis, political regulations, sustainability to name just a few.

**FIGURE 14: TRENDS AND CHALLENGES IMPACTING S&OP**

- **General – Environmental**
  - China trend
  - Financial crisis
  - Legal compliance requirements
  - Political regulations
  - Volatility of currency exchange rates
  - Sustainability
  - Cost reduction pressures
  - Shortage of loading space in inter-continental transportation

- **Market – Customer driven**
  - Increasing demand
  - Reducing sales volumes
  - Trend towards smaller order sizes
  - Enlarged product portfolio
  - Tender business
  - Integration of further tasks through retailers
  - Increasing promotional activities
  - Discount contracts
  - Parallel trade
  - Volatile sales channels

- **Company internal**
  - Different business units use same resources
  - Internal initiatives (e.g. changes in IT landscape + reorganization)

**Fast fact**
Prevailing or even growing importance of good S&OP processes in the future
IV. Conclusions and Recommendations

Summarizing the main findings of the study, the following conclusions can be drawn:

1. Although a well-known concept for many years, comprehensive deployment of S&OP has only happened in recent years within the process industries.

   → Increasing market dynamics and volatility put more emphasis on achieving planning excellence and raise attention for the topic.
   IT-advancement provides the necessary data transparency to integrate planning activities. To sustainably introduce an effective S&OP-process, changes in mindset are still required to enable further improvement.

2. Many companies in the industry sector under review show improvement potential in the average maturity of their S&OP processes.

   → Central success factors to address for S&OP improvement include better process governance structures, improved collaboration with other functions (e.g. finance), better measurement and transparency and IT-system support.
   → Senior management involvement and awareness of the importance of the process to control and steer the business should be strengthened.

3. A significant correlation between planning maturity and profitability of companies confirms the value creation hypothesis.

   → Efficient S&OP processes enable customer oriented market supply with simultaneous optimization of inventory levels (mgt. of volatility), alignment of the organization to joint and measurable targets, intelligent control of the product portfolio (profitability and strategic importance) and ensure the operational capability to deliver the plan.

4. Ongoing economic macro trends suggest a continuously high importance of S&OP in the future.

   → Considering the current trends and challenges in global markets, it can be seen that the trends of past years are likely to persist in the near to mid-term future and thus the need for companies to increase flexibility will also remain.

BearingPoint, therefore, recommends companies to review the maturity of their S&OP processes in a three phase approach as shown in Figure 15. The goal of the value oriented approach is to evaluate and improve current S&OP processes to be fit for upcoming challenges. The first phase “see” is about creating awareness to ensure top management sponsorship and a detailed assessment of the current performance of the process. The detailed design of the improvement initiative and of the future setup is done in the second phase “understand”. Finally the business transformation is driven by implementing the defined measures and ensuring the defined target achievement by closely monitoring the changes in relevant performance metrics.
BearingPoint is uniquely positioned to support companies in optimizing their S&OP processes. Reasons for this are among others:

- BearingPoint combines expertise in tools AND organizational transformation, which is essential for optimizing seamless information flows in integrated planning (S&OP)
- BearingPoint places significant focus on Supply Chain Excellence represented by its extensive track record of successful project delivery
- An experienced team of professionals in planning and extensive market know-how about business models in the process industries delivers modern solutions
- BearingPoint follows a collaborative approach to mutually achieve project targets and emphasizes change management and value creation topics
- Field proven tools support quick project success, e.g. leading practice reference processes, maturity model, templates, questionnaires
Disclaimer and Contact

BearingPoint S&OP Survey 2013 was created by BearingPoint GmbH. The objective of this study was to evaluate the status quo of S&OP maturity in process industries, to identify both opportunities for improvement as well as future challenges for companies across Europe.

The objective of the survey is to provide information around the topic and derive trends. The document is based on information gathered from primary sources (survey and interviews with participating companies) as well as selected secondary sources, which were deemed to be reliable. However, BearingPoint refuses to accept any responsibility or guarantees, neither for the completeness nor for the correctness of the data and information collected in the described manner. Without having conducted an independent validity check, BearingPoint considers all information, which was provided or is publicly accessible, to be correct, exact and comprehensive.

The S&OP survey 2013 is solely intended for information purposes. BearingPoint is aware that the study will be presented to decision makers. BearingPoint declines to assume any liability for any decisions or resolutions made based upon the information provided in the enclosed survey. This decline in liability refers to any claims possibly coming into consideration with regard to this study.

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