

Is Your SOP Process Effective?

by R. Michael Donovan

Sales and Operations Planning (SOP) is one of those topics that has been addressed many times in speeches, articles and books. While it may seem talked to death, however, good SOP practice in manufacturing is so rare that a few more words on the subject should not be a waste.

SOP is not just fundamental, it's an absolute prerequisite to high performance manufacturing. Though it appears deceptively simple, SOP is the process for determining demand and supply plans. Without functioning SOP, it is virtually impossible to correct the inevitable imbalances that will occur, not just in demand and supply, but in cross-functional thinking and action. By not practicing SOP for its total value, management severely limits its ability to control the direction of the overall business and make sure the business plan becomes reality. This puts management in the unenviable position of having limited directional control, and that, after all, is a prerequisite to good management.

The profit-draining ripple effects from poor SOP can be found throughout a business. In my experience, the largest costs are consistently underestimated and sometimes completely overlooked. When bad numbers drive manufacturing and sales, the results will be long cycle times, high overhead costs (especially expediting), erratic production schedule performance, excessive inventory, poor vendor material flow, lower production throughput and lots of dissatisfied customers, internal and external, resulting in lower sales. The cost of these bad numbers is incalculable, and that makes SOP one of the most critical of all management functions. Yet all too often, too little time and effort are spent on this vital process.

Use the following five evaluation questions to see if you have an SOP problem.

	<u>YES</u>	<u>NO</u>
1. Does sales accuse manufacturing of not making the products customers want?	<input type="checkbox"/>	<input type="checkbox"/>
2. Does manufacturing criticize sales for not forecasting what is needed for customers?	<input type="checkbox"/>	<input type="checkbox"/>
3. Are inventory levels and mix determined solely within manufacturing?	<input type="checkbox"/>	<input type="checkbox"/>
4. Is customer service (fill rate or lead time) more happenstance than a company-wide planned-for result?	<input type="checkbox"/>	<input type="checkbox"/>
5. Are late shipments, long lead times, shipping dollar crunches, lots of expediting, finger-pointing and customer complaints about delivery more the rule than the exception?	<input type="checkbox"/>	<input type="checkbox"/>

Unfortunately, many companies would answer “yes” to most or all of these questions. The operating difficulties that “yes” answers reveal is a common and critical missing link in the planning-to-execution cycle. What top management has in the annual business plan is not being translated into a plan that can directly drive the results of the day-to-day business activities that consume most of the company’s resources and really determine operating results. Worse, top management does not have a handle on the overall business by which operating direction is established and appropriate decisions are made. More likely than not, operating results are far less than they could and should be.

What is SOP?

Sales and operations planning is not just another meeting. It is the process by which management proactively communicates, coordinates, integrates and provides the direction for planning the volume, rate and mix of projected demand and supply. SOP firmly links the annual financial plan with executable sales, production and inventory plans expressed in units by product families. By approving the SOP, top management sets the numbers, resolves conflicts and synchronizes a direction for all functions.

SOP starts with a series of monthly meetings with middle management performing what is called pre-SOP. During pre-SOP, managers of functions such as marketing, sales, production, materials, accounting and engineering review previous performance, prepare their respective plans for going forward and attempt to reconcile any differences. In many companies, pre-SOP is initially done at a detailed level, but is aggregated upward into product families that make sense for demand vs. supply correlation and decisions on volume, rate and mix.

During the top management SOP meeting, each product family’s demand and supply actual vs. planned performance is reviewed. Top management should also be examining and questioning expected demand volume, rate and mix vs. the demand for capacity. In addition, current and recommended inventory levels should be carefully scrutinized. Top management determines the desired customer service level (fill rate or lead time) and what resources are required to support the service objective. SOP is an essential vehicle to effectively manage the inevitable - - *change*.

The essence of SOP is to deal with reality: make decisions regarding plans for sales, inventory and production: and authorize SOP execution and consumption of resources through the master production schedule and/or scheduled rate in flow manufacturing. This process is no simple matter. It results in the marching orders for sales, production, engineering, materials and others in the company. SOP, done well, insures communication up, down and across the organization, and this helps to insure teamwork.

A common approach to planning has top management setting annual booking goals for sales and shipping goals for manufacturing without any relevant definition of product mix for demand and supply or the timing of either. As a result, someone somewhere in the organization is left in the rudderless position of having to decide what products will be made and when customer demand will be met. These decisions are often made by someone in the wrong function, doing it the wrong way and without the right information. Business performance accountability, especially in terms of inventory, cycle time and customer service, are now distorted and probably not well understood.

Traditional measures distort

Often, manufacturing's accountability for inventory, cycle time and customer service performance is distorted with traditional measures pointing to the wrong causes for poor performance. Without SOP and numbers to establish volume, rate and mix for each product, however, manufacturing will, as a matter of survival, decide what to make and when to make it, with the hoped for result being product availability to meet customers' needs. Unfortunately, the almost inevitable consequence is that inventories are inflated, cycle times increase, expediting levels are very high and finger pointing and frustration are a way of life. The business plan becomes a moving target, and accountability for attainment at all steps is very vague.

Predicting, influencing, managing and communicating demand, although not easy, is a very necessary activity. Doing the same with supply is equally important. Done poorly, the relationship between manufacturing and sales can be so adversarial the two barely coexist. Fortunately, SOP is a proven process to bridge the gap between manufacturing and sales. In fact, SOP will likely reduce the quantity of communication, but substantially increase the quality of communication between manufacturing and sales regarding demand and supply. A real benefit of implementing an SOP effectively is that an adversarial relationship moves to coexistence and ultimately to real teamwork.

Assess Your SOP

All companies perform some sort of SOP just to stay in business. The problem with SOP is usually in the scope and quality of its output. The following 25 questions are intended to help you assess the effectiveness of the SOP process in your company. Having multiple persons perform the assessment may point to disparate thinking, which should form the basis from which improvements can be made.

Policy and procedure

- | | <u>YES</u> | <u>NO</u> |
|--|--------------------------|--------------------------|
| 1. Sales and Operations Planning is a formal, active and participative top management process to support a balance between customer demand, resources and supply. The SOP process is a subset of and ties directly to the business plan. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. There is a complete written sales and operations planning policy which covers purpose, participants and process. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. There is at least one monthly meeting to review and update the sales and operations plan. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. A formal agenda is circulated prior to each monthly sales and operations planning meeting. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. There are preliminary meetings of each department to prepare for the sales and operations planning meeting. | <input type="checkbox"/> | <input type="checkbox"/> |

	<u>YES</u>	<u>NO</u>
6. The top executive from each of the following areas attends the monthly sales and operations planning meetings:		
• President (or general manager)	<input type="checkbox"/>	<input type="checkbox"/>
• Sales and marketing	<input type="checkbox"/>	<input type="checkbox"/>
• Manufacturing	<input type="checkbox"/>	<input type="checkbox"/>
• Materials	<input type="checkbox"/>	<input type="checkbox"/>
• Finance	<input type="checkbox"/>	<input type="checkbox"/>
• Engineering	<input type="checkbox"/>	<input type="checkbox"/>
7. Timefences are used as an aid for minimizing near-term and managing longer-term operational schedule changes.	<input type="checkbox"/>	<input type="checkbox"/>
8. The sales and operations planning meeting dates are established well enough in advance to avoid schedule conflicts with all appropriate executives in attendance.	<input type="checkbox"/>	<input type="checkbox"/>
9. Any unanticipated major changes in sales and/or production rates are promptly communicated to the appropriate departments as soon as the latest information is known.	<input type="checkbox"/>	<input type="checkbox"/>
10. The president or general manager approves the sales and operations plan and distributes the plan, within 3 days of the meeting, with a covering memorandum every month.	<input type="checkbox"/>	<input type="checkbox"/>
11. The interface to sales and operations planning by functions such as engineering are well defined, including performance measurement. Responsibility, authority and accountability are clearly established.	<input type="checkbox"/>	<input type="checkbox"/>
System support		
12. A quick and accurate simulation of capacity requirements exists to predict the impact of alternative plans on potentially constraining resources.	<input type="checkbox"/>	<input type="checkbox"/>
13. The MRP system will translate the operations plan into a time-phased material plan and highlight potential problems.	<input type="checkbox"/>	<input type="checkbox"/>
14. The master schedule can be summarized for individual items within a manufacturing resource family and compared to the operations plan to insure production rate agreement.	<input type="checkbox"/>	<input type="checkbox"/>
15. A rollup system exists to insure that detailed forecasts by item tie to aggregate sales plans by market segment/territory and total.	<input type="checkbox"/>	<input type="checkbox"/>

Presentation of information

- | | <u>YES</u> | <u>NO</u> |
|--|--------------------------|--------------------------|
| 16. The plans are reviewed by product family in the units of measure that communicate effectively for sales and manufacturing needs. | <input type="checkbox"/> | <input type="checkbox"/> |
| 17. Manufacturing families for the operations plan are expressed in a unit of measure that correlates with key and/or constraining resources. | <input type="checkbox"/> | <input type="checkbox"/> |
| 18. The information presented and reviewed includes history and projections for sales, production, inventory, backlog and shipments. | <input type="checkbox"/> | <input type="checkbox"/> |
| 19. The sales and operations plan's horizon is at least one year for effective sales, financial, production resource and vendor capacity planning. | <input type="checkbox"/> | <input type="checkbox"/> |
| 20. Inventory, backlog and/or delivery leadtime objectives are thoroughly reviewed each month as part of this planning process. | <input type="checkbox"/> | <input type="checkbox"/> |
| 21. The sales and operations planning process consistently follows a proceduralized sequence of steps. The general manager runs the meeting. | <input type="checkbox"/> | <input type="checkbox"/> |

Performance measurement

- | | | |
|--|--------------------------|--------------------------|
| 22. Inventory, backlog and/or leadtime objectives have been established for each product family. | <input type="checkbox"/> | <input type="checkbox"/> |
| 23. Specific goals and accountability measurements with tolerances exist for operations plan attainment. | <input type="checkbox"/> | <input type="checkbox"/> |
| 24. Specific goals and accountability measurements with tolerances exist for sales plan attainment. | <input type="checkbox"/> | <input type="checkbox"/> |
| 25. The approved sales and operation plan ties directly to the financial plan with any deviations explained. | <input type="checkbox"/> | <input type="checkbox"/> |

An effective SOP process is top management driven with all functions knowledgeably participating in making the right decision to resolve conflicts and encourage realistic improvement.

SOP is a process that takes time to learn and to really appreciate its value to the entire business. For SOP to work well takes at least 9 months and probably more than 12 months of practice. When you have passed these milestones, you will conclude that SOP is somewhere between very worthwhile to miraculous.

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