ERP success needs a Sales & Operations Planning process

You will not achieve excellence from ERP if you do not have an effective, high level Sales & Operations Planning (S&OP) process.

Introduction

We constantly hear stories that few companies are achieving their expected benefits through ERP implementation. There can be many reasons for this, which are well documented. One possible problem is the lack of a Sales & Operations Planning process, whether using the ERP software or not. It is not the software that is important; it is the creation of an effective, efficient S&OP process, leading to high level, monthly review and approval of the plans.

The main theories

First, a recent definition: Sales & Operations Planning is a decision making process, to balance demand and supply, to align volume and mix, and to integrate financial and operating plans.

It is essential that the top level management of the business unit accepts the ownership and responsibility for the S&OP process. It is their tool for steering the Company to deliver the strategic objectives and business plan. They own the process, and are responsible for ensuring that it adds value to their business.

S&OP is a monthly business process, just like the financial accounts; some months, do you say “we’re too busy to do the accounts, leave it to next month?” No! The same applies to S&OP. S&OP is about balance across the whole business, not just sales and operations, in the medium to long term; lower level management is employed to look after the short term, giving top management the time to focus farther out. They need to see the big picture; in today’s hectic world they often have not got the time for the detail.

At the end of each monthly cycle, top management needs to review the balance, primarily, of demand and supply, and of resources, finance, and people as well, and agree that the plans will deliver the objectives. If supply and demand are out of balance, bad things start to happen – products are not shipped on-time, in full; customers become unhappy and go elsewhere; inventory build up occurs; lead times increase; there is pressure on profit margins; and more. To achieve a successful process, top management needs both commitment and involvement (apologies, back to age old eggs and bacon story – the hen was involved, but the pig was committed!).
Basically S&OP is the medium to long term Plan, Do, Check, Act (PDCA) loop. Develop one set of numbers, agreed at the top level, that will delight the customers, achieve the profit plan, and will be achievable by the major resources. Some people call this the ‘one number company’. If the plans are not realistically achievable, the plans are worthless.

Most companies have too many finished products for the top management level to review each end item, so the data is reviewed at the family level, so that you can achieve this in a reasonable short meeting, say no longer than 2 hours. You are creating a realistic set of plans that can be passed on to others to develop the detail at the SKU level, and for the plans to be executed successfully. Poor medium to long term planning = poor shorter term planning = poor execution of plans = not hitting the numbers. So success must start at the top in developing the right plans.

Top management must be proactive in creating the right plans, to minimise their time reacting to crises. Be proactive, not reactive. Certainly, when there are problems, these may be escalated to the S&OP process, but top management would much prefer the conflicts to be ironed out lower down the organisation.

S&OP should be used for risk analysis and mitigation. What if scenarios, should be reviewed – what will be the impact upon operations and resources if that big contract from that major customer comes in 3 months from now? Can we start planning for the order? Which of our major resources will be hit first? Should we start talking to our major supplier about a 30% increase in volumes? What will be the impact upon the finances?

So S&OP provides top management with their view into the future, so that the top level, family plans for demand, operations, resources, engineering, finance, and personnel are reviewed, balanced and agreed every month. When the plans have been agreed at the top, they are communicated vertically down the organisation for more detailed planning and execution. S&OP is about 3 words – communication, communication, and communication. Everybody knows the one set of numbers that the business is working to, until they change.
The overall process

The overall process, as described below, is a template for companies to use to develop the S&OP process that works for them. What are the end objectives of the S&OP process?

- To have a set of plans that will deliver the strategic objectives, the business plan, and the annual budget.
- To know that the demand plan can be sold to the customers.
- To know that the operations plans can be executed by the major and critical resources.
- To know that the projected sales and operations numbers will meet the current annual budget and the current business plan; if not, when is the gap, and when and how do we believe we can close that gap?

The process for you must meet the end objectives. Use the template to develop your process. The template revolves around 5 steps:

**Step 1:** review and update the new product development/introduction (NPD/NPI) programmes, for dissemination to sales and operations. Document risks and assumptions

**Step 2:** create a new sales/demand plan, which is more than just a forecast that includes input from all stakeholders in demand planning. The previous month has just been closed; you have another month of demand history. Create the forecast, probably using forecasting software that may or may not be in your ERP system, at the family level, using that extra month of data. Circulate the new forecast to all interested stakeholders. Get their input, and create a proposed demand plan, to go on to the demand planning meeting, for review and approval. Document risks and assumptions

**Step 3:** almost 2 steps. First create the operations plan that will meet the demand plan, on-time, in full each and every month, within known simple constraints. The first step of this may be to consider the balance of the old operations plan, and the new demand plan. Then, if necessary, create a new operations plan, within the known constraints, ensuring that the outcome of inventory/order book meets the criteria you have set. Second, match the operations plan against major and critical resources, so that you can be sure the plans are realistic, not just wish lists. This may be achieved with the creation of bills of resources, which show how much of these resources is consumed by one unit (pallet, item, kilo, whatever) of production. The operations plan is ‘multiplied’ by the bill of resources for each family, to create a resource plan for each family; the resource plans are added together, to calculate total resource required, and the total is compared to available resource capacity;
problems are noted, and solutions are identified, if possible. Document risks and assumptions

Step 4: the integration and reconciliation phase. Integrate the numbers with the rest of the business – what is the impact upon the financial numbers, the people numbers, the IT department, and more? This has previously been referred to as the pre-S&OP and/or the partnership meeting. Do the performance measurements for last month, and perhaps a three month moving average. Did we sell what we said we would sell? Did we make what we said we would make? Did we use the key resources according to plan? Publish the numbers, good or bad. Create the agenda, including recommendations and potential scenarios, for the top management team, circulate, and allow time to digest.

Step 5: the executive S&OP meeting. Work through the agenda. Review the progress on actions from last time. Review each family; approve the recommendations; come up with new proposals; make decisions; steer the business in the right direction. Short and focused on the end objectives. Chaired by the top executive for the business unit; review the success of the process, and identify at least one item for improvement in the next cycle. Publish the minutes, including action items.

The global dimension

Of course, many organisations now have worldwide operations, with sales and operations business units spread across the globe. This may add further steps to the process. We have worked with one company that does it’s demand planning centrally in the USA, divides that demand between 5 global manufacturing plants, who each conduct their own supply planning process, and identify the issues they have with meeting that demand; next there is a group meeting at which alternatives are discussed to solve the issues; and finally there is a group executive meeting to review and agree the plans. Of course, many of these ‘meetings’ are conference calls and video conferencing, not face to face meetings. The process works.

You may have more steps; you may have less in a small company. What makes the process work for top management is the preparation (homework), that is done by their managers at each of the prior 4 stages; if that work is poorly done, then all the major work needs to be done in phase 5, and our experience says that does not work, and the process will get abandoned, because the value is not self evident. The minimum horizon is the lead time to increase the capacity of the major or critical resources; in some companies this can be 18 months. We believe 2 years is a sensible horizon, perhaps the first 12 months in monthly buckets, and the second 12 months in quarters. Time fences or decision points
should be used to manage change across that horizon. Some of the meeting time will be taken reviewing recent past performance, because that will have an impact to make future plans better, but most time should be spent looking forwards to the medium to long term, not looking backwards and arguing about whose fault it was.

The process is about understanding the balance for each family, so that, as and when problems arise, they can be tackled by the top management from a position of knowledge, and the time taken to resolve will be shorter, and a better decision should be taken (if you think education is expensive, try ignorance!). You need a consistent, sustainable, realistic process that everyone can understand.

Conclusions

None of this seems very complicated. Each step has clear inputs, process, and outputs. Your ERP systems should be providing the necessary data, even if they do not specifically support the process. So, if your ERP system is not delivering the benefits you expected, have a look at your top level planning, and get on with improving your Sales & Operations Planning process. If you don’t, your competitors are!

~ Robin Goodfellow ~

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