

S&OP or Just Good Supply Planning?

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SOUND FAMILIAR?

- Your Sales and Operations activities are not aligned. Trading make promises and create plans that Supply cannot fulfil, leading to poor customer service and a blame culture between functions
- A lack of communication and a poor understanding of requirements and constraints, mean that small problems quickly escalate into large issues, adversely impacting upon company performance
- Different functions are focused on satisfying their own priorities in isolation with time and resources being wasted, again impacting upon service and performance
- Decisions are taken in isolation and based on judgemental bias, not fact
- Feast and famine - excess inventories, expediting, poor order fulfilment, overtime and poor resource utilisation
- All of this creating a reactive culture of undisciplined business processes, leading to unnecessary waste and adversely impacting your bottom line

If you can relate to any of the above then you are not yet fully exploiting the benefits of an effective Sales and Operations Planning (S&OP) process – Read On!

SO, WHAT IS S&OP

Consider the diagram in figure 1. S&OP is the business process adopted to manage the balance and trade off between the conflicting preferences of the supply and demand side of the supply chain. Rather than sub optimising business performance by

focusing on the achievement of individual functional targets, the aim of the S&OP process is to optimise by ensuring decisions taken are informed by what is best for the total business. This is of acute importance in vertically integrated organisations, where merely focusing on specific targets in isolation can be extremely damaging to the overall optimisation of the business.

A well executed S&OP process will drive the following:

- Clear and formal communication between the demand side and the supply sides of the business
- Balancing of expected demand with the capabilities of in-house and external production facilities
- Resolving future problems before they manifest themselves

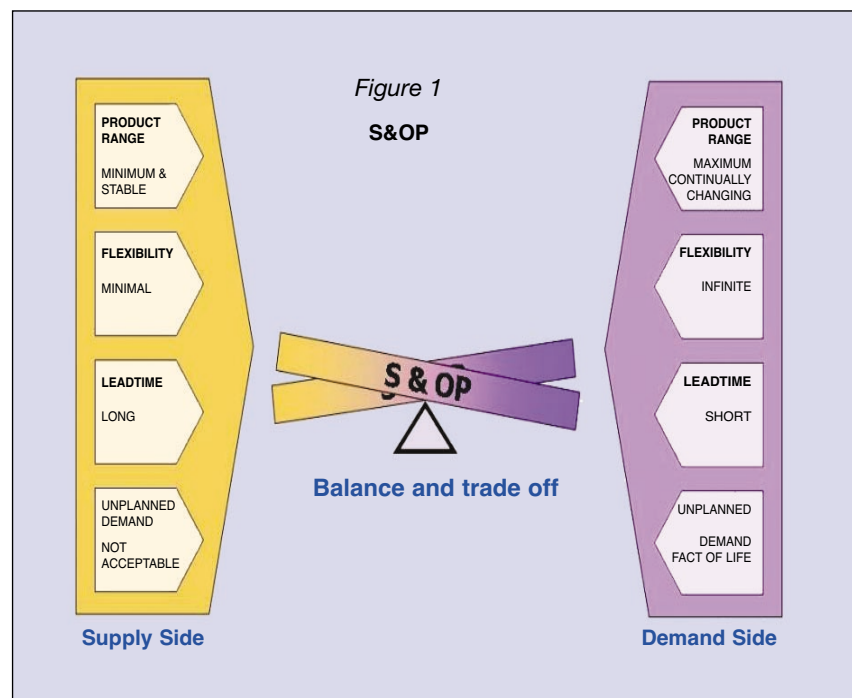
- Responding effectively to shortages and surpluses in the supply chain

Resulting in:

- Lower inventory levels
- Reduced operating costs
- Maximised customer service and sales revenue
- Maximised profitability and return on assets

AMR Research has this to say about S&OP;

“The only enterprise process to balance the supply and demand side equation optimally is S&OP. In fact, a formal well executed S&OP process was identified as one of the top practices of performance leaders”



What S&OP isn't

First and foremost S&OP is not an IT system, despite what software companies say, you cannot buy S&OP as an off the shelf package.

At its heart is one number, one plan which requires a maturity and honesty from a business that cannot be achieved 'out of a box'. To this end S&OP is a culture, a philosophy, a whole company way of working. That is not to say however, that IT systems and technology are not massive enablers to achieving S&OP.

Nor is it a well administered suite of reports, KPIs, meetings and associated minutes, with ticks in boxes to say you have achieved all that is required according to the timetable. Again, this formality and structure is an essential enabler, but will not create the successes that can only come from an organisation embracing the culture, and philosophy of S&OP.

As indicated, a robust IT infrastructure encompassing demand forecasting through to master scheduling and DRP, together with formal well-structured meetings and prescribed reporting timetables, are just some of the essential underpinning requirements necessary to enable the pragmatic implementation and operation of S&OP. These are also the same requirements to achieve good supply chain planning.

Where to Start?

To achieve the cultural and philosophical changes required for an organisation to truly deliver the benefits from an S&OP process, requires an appetite and desire that is driven from the Chief Exec down, and absolutely must have active support and sponsorship by the board. Understandably, this can take time and a lot of lobbying to achieve, and is often too much too soon. Our experience is that this lack of initial appetite by the senior players in an organisation, to take on what appears to be too big a change to current business processes is what causes many S&OP implementations to

whither on the vine, and not deliver to expectation.

With this in mind, it is vital for a business to be honest about what it is prepared to try and achieve. If there is no passion and appetite for the cultural and business process change, then don't try to dress up any strategy as S&OP. As we have seen implementing best practices, to achieve good supply chain planning is a key foundation stone of a robust S&OP process – so why not start by aiming for good supply chain planning? This is an achievable initial result, has positive benefit to the business and is a key underpinning requirement for delivering S&OP.

GOOD SUPPLY CHAIN PLANNING

Good supply chain planning can be split into two distinct sections, demand side and supply side. On the demand side the focus is on accurate demand forecasting, probably using a software package to manage the generation of the demand forecast. On the supply side, the focus is reacting to and implementing appropriate plans to meet the requirements of the demand forecast, again software packages are used to generate requirements plans at the product/SKU level, and also to look at resource plans at a more aggregate level. The key here is integration and discipline, integration of the systems is required to enable the consequences of changes to the forecast on the supply plans to be interpreted and communicated back into the business in real time. Discipline is required by all players in the planning cycle to adhere to the agreed timetables and procedures for updates and communication to avoid anarchy and mistrust creeping in.

Demand Forecasting

The objective here is to generate a robust prediction of the future demand the business will experience, the intricacies of exactly how to do this are the subject of a entire paper in their own right and it is not proposed to go into that now. There are however, some underpinning

principles to generating a forecast that are essential to achieving a robust plan, and as such essential in underpinning an S&OP process as the 'one number priority' the entire business is working to.

The demand forecast should be fact based and explainable, it should never be based on 'gut feel' or mere hearsay and it is likely that it will be the consolidation of some sort of statistical analysis of history with an overlay of market intelligence. It is vital that it is also an honest reflection of what the business believes is achievable, no matter how unpalatable that may be at times, it should never be aspirational. If a forecast is too low to achieve, current targets should only be increased if the strategy that will yield that increase, can be explained and justified and not just to create a number that is acceptable to all – this forms a core part of the cultural and business process change required to fully migrate to S&OP.

A common mistake is to drag forecasts up to equal budgets, so as not to show any planned deficit. Again, this is another part of the change of thinking to move to S&OP, we need to have both numbers; a budget that at the snapshot in time when it was created was valid, and a forecast that is 'live', and evolves as the business and market place change. We can then track the performance of the forecast to the budget, and where there are significant gaps, both positive and negative, the task is to understand why and decide what, if any actions should be taken. This process enriches the businesses decision making and understanding, the alternative is a fool's paradise where there is no problem because the forecast always equals the number we'd like to see – but remember, someone will plan to that number, production will be scheduled and stock dispositioned.

Supply Planning

The task of the supply planner is to take the forecast created by the demand side of the business, and generate a plan that will meet the

service proposition of the business in meeting that forecast, and when the forecast changes to be able to interpret the consequences of that, and communicate these back into the business. Again, the intricacies of how to achieve this are the subject of a paper in their own right, only the key concepts and principles required to underpin our S&OP process will be covered here.

Plan to the forecast, this may seem an obvious statement, but the second guessing of the forecast is all too common place within the supply planning community. Forecasts are always wrong, accept it, get over it, that is what safety stock is for. If the degree of error is high, the correct approach is to communicate the consequence, increased safety stock requirements back into the business and not to second guess at what the number might be, and plan to that. The latter approach completely destroys the 'one number, one plan' ethos underpinning S&OP, the clarity of an integrated system starting at one end with a demand forecast, and resulting in supply and resource plans to meet that forecast has been destroyed in one fell swoop.

There is however, one vital concept that supply planners have to aid them in their task

Inventory is a Consequence

All too often, supply planners describe how they plan inventory, how they've managed to shave a week off the stock target and get away with it! All too often, the reality of how this has been achieved is through greater expediting or incorrect stock targets to begin with.

The magic lies in the realisation that inventory is not planned, rather it is the supply chain that is planned, inventory is merely the consequence of the parameters that define the supply chain.

Consider the diagram in figure 2. The spheres represent the parameters that define a supply chain:

- Service level - there will be a desired service level to be achieved to meet the customer proposition.
- Variability - the forecast is always wrong, we can measure by how much and use this to drive how much buffer (safety stock) is required.
- Constraints - leadtimes, minimum order quantities and batch sizes all have a part to play in how much inventory will need to be carried.

Once the above is understood, the ability to communicate consequences

back into the business is straight forward, some examples:

If there is a desire to reduce stock levels what is going to change?

Is forecast accuracy going to improve, or can a lower service level be accepted?

What would be the impact of reducing leadtimes or halving batch sizes on inventory holding, and would the reduction pay for any investment required?

As can be seen, this model provides us with a powerful way to assess the consequences of changes to the parameters that define a supply chain.

Again this provides another underpinning task to delivering S&OP, the ability to carry out trade off analysis.

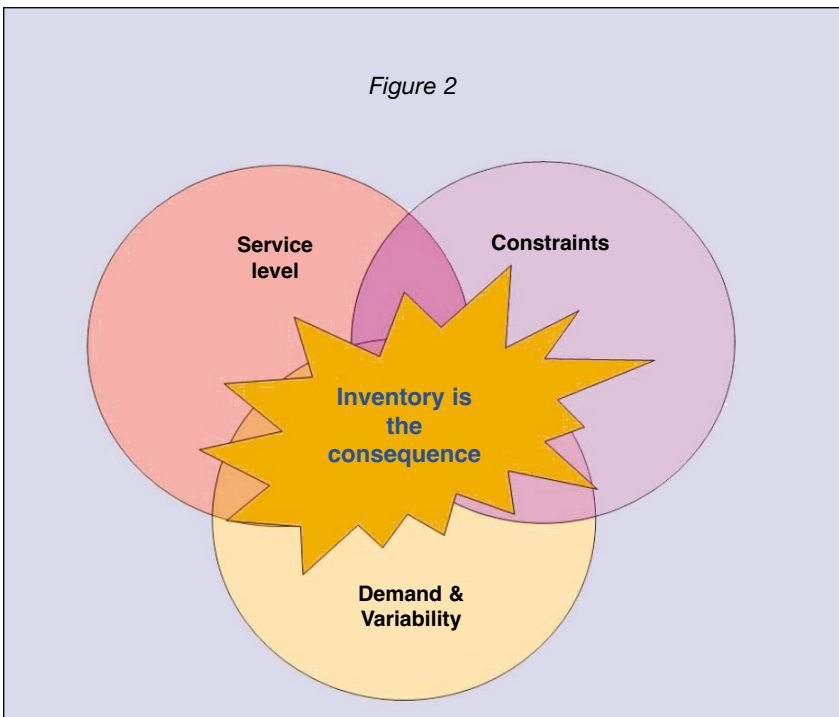
MIGRATING TO S&OP

Good supply chain planning is about the demand side of the supply / demand equation generating an honest forecast and the supply side reacting to this. It is transactional, based on systems and processes, and can be achieved by implementing best practices. This is a good place to get to, and is in fact where lots of organisations, mistakenly believe that they have an S&OP process, the reality being they have a good supply chain planning process.

S&OP on the other hand, takes this one step further, and rather than the supply side reacting to the demand side, it actively promotes healthy conflict between the two sides of the supply / demand equation. This drives out balance and trade off, and ultimately leads to decisions being taken that are best for the total business.

Culture

To achieve this final stage requires a cultural change within the organisation, this must be championed from the Chief Exec down, it must also encompass all functions. Participation and accountability within the process must be fostered, hidden agendas and silo objectives will lead to failure.



Net not Gross

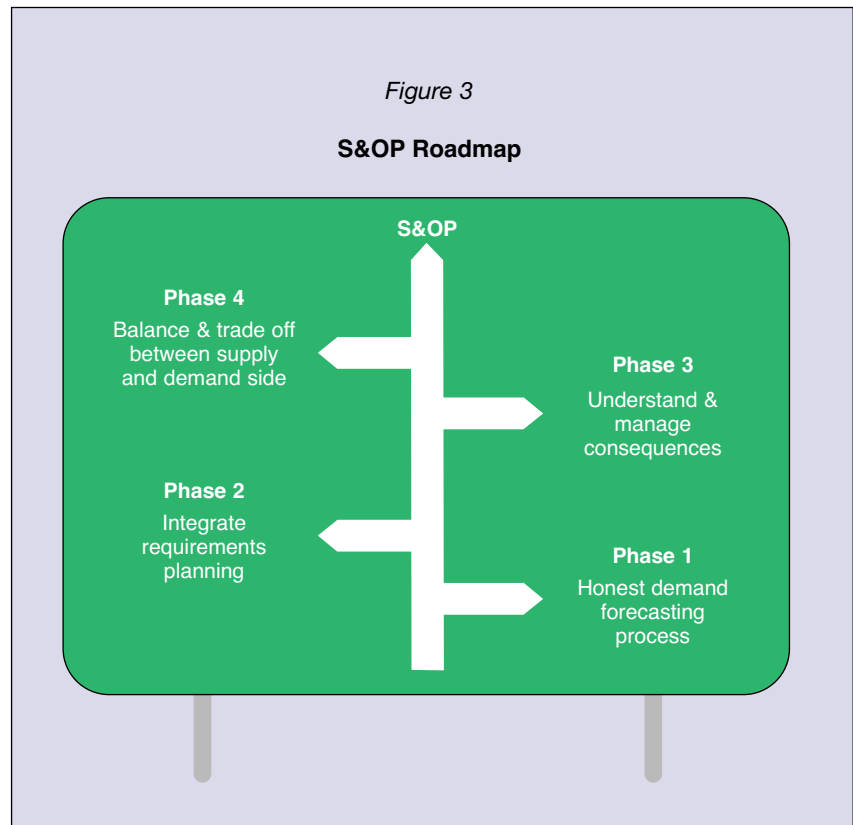
The final step is to address how costs are allocated and margin is measured, the key is in understanding the true cost of supply for products and groups of products, again to allow trade off decisions to be informed by the most appropriate data. The benefit is achieved by identifying the good, bad and ugly aspects of supply chain and commercial practice, so that decisions and initiatives can be prioritised, based on profit realisation rather than the more usual crude gross margin comparisons.

ROAD MAP

Figure 3 shows the Novo Solutions S&OP Road Map. This is a 4 phase model designed to break out the individual steps to be taken that ultimately result in the establishment of an effective S&OP process. It is designed to allow achievable targets and goals to be set, that on their own do not constitute S&OP but are another step towards it, each step achieves two objectives; firstly the establishment of the required systems and business processes that underpin S&OP, and secondly slowly but surely starts to change the culture and philosophy within an organisation to be aligned with that required by S&OP. In this way, the common failure mode of striving for too much change too soon is avoided, with the completion of each phase further enhancing an organisations planning process.

Breaking down the journey towards S&OP into these clearly bounded and manageable phases, allows organisations to focus resource and effort on the successful delivery of each phase, with the completion of each phase delivering significant business benefit in terms of improvements to the overall planning process.

Not surprisingly, the road map has been deployed by Novo Solutions as part of its Planning Competence Audit, the output from which typically shows that organisations do not yet have all phases established, and more often than not, shows they have visited each phase, but as yet have failed to fully implement any.



CONCLUSION

Increasingly, businesses are realising the importance of good planning, service level offers, working capital tied up in inventory and efficient utilisation of assets and resources amongst other things depend on it. Sales & Operations Planning, or S&OP has to a large extent been offered as a magic

bullet to achieving this, with many organisations proudly proclaiming they have implemented it. Organisations must take an honest look at their planning processes, and decide where they are on the road map, and initially do they genuinely have an appetite for at this moment – S&OP or good supply chain planning?

About the authors

Brian Dooley is a director of Novo Solutions, a specialist supply chain consultancy focusing on delivering pragmatic solutions for its clients. He has an extensive background in supply chain planning, both as a practitioner and consultant particularly within the healthcare and retail sectors. He has worked on many projects driving companies towards achieving the goal of a one number, one plan process.

Rob Higgins is also a director of Novo Solutions and has had extensive experience at both the practitioner, and consultant level of business planning in general. With a background in sales and marketing, as well as supply chain, his particular focus is on bringing together and leveraging the theoretical ideals of S&OP, with the pragmatic realities of business constraints and capability.