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HOW TO MAKE SUPPLY MEET DEMAND?

By Vivek Sood & Tony Fedorowicz

In a quotation, famously and perhaps apocryphally, attributed to Intel Corporations' founder Andy Grove said "for one brief moment the demand will equal supply and we will have – the perfect union. Rest of the time we struggle with either too much supply or too much demand."

Understanding the acceptance of the fundamental truth in the above quotation is perhaps the start of i-SOP – Intelligent Sales and Operations Planning. No demand forecast is perfect and no supply system is capable of meeting all the demand perfectly all the time. The result we are seeking is to work collaboratively, in order to create an organization that is capable of maximizing profitability under every demand and supply condition it could possibly encounter. That, in itself, is a lofty goal when we don't even know the whole range of demand and supply conditions that could possibly be encountered.

So, what does a well functioning i-SOP organization look like? In the figure 1 below where we show i-SOP within the big picture of most of our strategic consulting work, we have highlighted all the various parts that must come together to create a good i-SOP process.

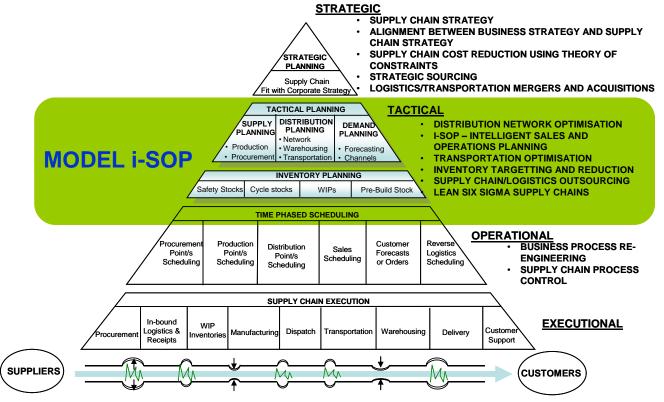


Figure 1.

The Goal we are seeking from this i-SOP process is **profit maximization**. It is not inventory minimization; there are numerous IT systems which purport to do that, many of whom do an adequate job of it. It is not cost minimization; again there are numerous supply chain systems that purport to do that adequately enough. The goal is not revenue maximization either; numerous yield management systems do that adequately enough. The end goal of a successful i-SOP process is profit maximization, and to our knowledge is no IT system which does it adequately enough – hence the need for an elaborate process aided by a toolkit.

i-SOP brings together two disparate but essential mechanisms to look at an even bigger picture. On one hand, demand management is the art of maximizing revenue achieved out of a pool of customers and products in a given period. The key questions asked are - which customers to serve; where; with which products; at what price; to be charged in which way? All these questions are extremely important, and are generally thought be exclusive domain of sales departments. Some industries such as the telecommunications and airlines are renowned to be extremely good at what is euphemistically called 'yield management' but is essentially a revenue maximization exercise. On the other hand, supply management is the art of minimizing the total cost of fulfillment while meeting all the demands placed on the supply systems. The key questions are – where to buy, produce and store; for how long; when and how to move and to where in order to keep the customers happy? These questions are thought to be exclusive domain of production and logistics departments. Cost minimization has been the most popular end goal of traditional supply chain management systems. This ability, to simultaneously focus on maximizing end-results for the customers and minimizing the costs, is the foundation of the emerging supply eco-systems as a result of i-SOP based thinking.

Starting with the clear purpose of maximizing profitability for the company as a whole, it is much easier to create a collaborative process for Sales and Operations Planning. Technically, every supply chain professional knows that the objective function of profit maximization embodies inventory minimization, cost minimization, revenue maximization and stock-out minimization at the same time. The technical problem is relatively easy enough to define using the operations theory. However, in reality, it is much harder to create and infuse a collaborative process that achieves that purpose into an organization's DNA. That is the aim of i-SOP.

Intelligent Sales and Operations Planning relies just enough on tools, formulas and check lists to make it a success. The key to its success is, however, the collaborative approach built into the process from the beginning. The leadership and participants are selected and trained for positive, results oriented attitude to joint problem solving using lateral thinking. Open and honest communication is guided by the instruments and tools created especially for this purpose. Finally, a single measure of success is used for all participants in the process.

Let us briefly recap on the differences between the traditional S & OP process and the intelligent S & OP process.

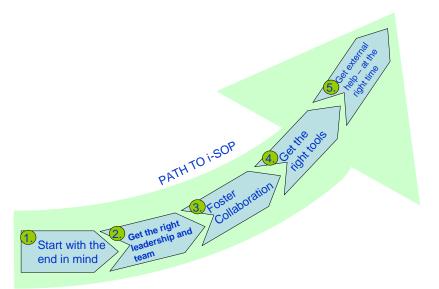
Attribute	Traditional S&OP	i-SOP	
Attitude	Defensive/Offensive	Collaborative	
Focus	Blame others	Team work	
Orientation	Re-active	Pro-active Contract	

Communication	Stilted, stale, formulistic	Open, honest, guided but not controlled by a toolkit
Tools	Strict process charts and checklists	Dynamic balancing toolkit
Leadership	Battle hardened corporate warriors	Pragmatic, positive, results oriented business people
Measure of success	Each departmental silo has its own measure of success for the outcomes from the S & OP process	The whole group has a single measure of success – Profit

These were discussed in detail in the previous issue of this magazine. In this article we focus on the way forward.

As Einstein pointed out, no problem can be solved at the same level of thinking at which it is experienced. Following key principles (shown in figure 2) underlying i-SOP rely on raising the level of thinking to that required for the purpose of achieving S& OP's fundamental goals:

<u>Figure 2.</u>



1. Start with the end in mind

The end goal of S & OP is always profit maximization. This should sit on top of everyone's mind from beginning to end during the process. The S & OP leader should make it a priority to make sure that this end goal is clearly articulated and how sub-goals in areas such as delivery performance and inventory contribute and support the end goal. This step alone will go a long way to ensure the success of this process.

2. <u>Get the right leadership and right team</u>

Second most important principal in creating an i-SOP is to get the right leadership and team on board. This is easier said that done. In the current circumstances, demand for good supply chain professionals far outstrips the supply. Pragmatic thought leaders in this field are writing their own salary tickets. Finding the right people is hard. Still harder is to retrain the current staff. However, we believe that it is possible and necessary to do both. Generally, a few strong leaders in the team are enough to create the momentum and critical mass needed to develop the right culture.

3. Foster collaborative teamwork through open, pro-active attitude

With the right team and leadership in place, it is important to create a collaborative team environment. The team should share the responsibility of maximizing profit through dynamic decision making to balance supply with demand. There should be no bigger agenda than the end goal. There are many ways of achieving collaborative team work – most of them pertaining to team building workshops. While in our experience some are better than others, we will not go into these into too many details here because most readers will be familiar with these.

4. Get the right tools

All the above steps are necessary pre-conditions before we can discuss the right tools. Dynamic, light, open, collaborative, balancing tools are the required to support the above 3 steps. i-SOP incorporates some of the most effective, yet easiest to use tools that dynamically match demand and supply in order to highlight excess and/or deficit to facilitate collaborative decision making. These tools are not resource or data hungry, and not clunky. Most importantly they do not take over the whole process, but are merely aid to collaborative decision making.

5. <u>Get external help – at the right time</u>

This advice will sound slight self-serving coming from external consultants. However, after significant strategic experience in operations, supply chains and effectiveness – we have come to a strong belief that the right external help at the right time can save a lot of heart ache and time. Just like even the top golfer regularly get coaching from a swing coach (who might be a much more ordinary player that the player himself), it helps to get objective, external view point on a periodic basis. Most internal consultants find it hard to make effective change as they themselves are too entrenched in the organizations culture and processes to break away from them. The i-SOP process has been designed to parachute a highly trained professional into the organization for 2 days every month to collect data, process information and make preparations for collaborative decision making during the actual meeting. However, this is not the only way to use external help. The leader in each case is in a good position to think and decide on what is the most appropriate time and manner in which the external help can be best utilized.

We believe that the above 5 steps, if carried out in proper order and spirit will go a long way to ensure success of the Sales and Operations Planning Process. This process is at the core of every organization, and needs to move with time.

About the Authors

The authors co-wrote with Dr. Wolfgang Partsch a recent report entitled "i-SOP; an intelligent way to design and implement Sales and Operations Planning" which is a ground breaking text of Sales and Operations planning.

For comments on this article please contact the editor on ???

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Vivek is a supply chain strategist with more than 24 years experience in Supply Chains -11 years in operational management, and 13 years as a strategy consultant. Before founding Global Supply Chain Group in 2000 with a group of partners, he was a Supply Chain strategist with Booz Allen & Hamilton a top-tier global management consultancy.

He created Supply Chain strategies for a number of companies in industries such as food and beverages, consumer packaged goods, chemicals, airlines, cement manufacturing, constructions materials, integrated agri-business and mining. His projects have covered all aspects of supply chains, from Green Supply Chains, overall supply chain design to network optimisation, inventory targeting and cost reduction, supplier negotiations with a wide a variety of supply chain service providers including trucking companies, rail roads, shipping companies, third party logistics companies, lead logistics providers, freight forwarders, and other suppliers etc.

He has served dozens of world-wide companies in nearly 70 projects, most of them as a Project Manager in Diagnostic, Conceptualization and Implementation of supply chains, including Green Supply Chains. He has written number of path breaking articles and commentaries published in respected journals and magazines. He has also spoken as several conferences, forums and workshops on leading supply chain issues, including Green Supply Chains.

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Tony has over 20 years experience as a Supply Chain Practitioner and thought leader in several world leading Australian and International firms. He has worked in a variety of industries that include mining services, chemicals, consumer products, lifts, animal health, gaming machines, pharmaceuticals and lubricants.

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