

Unconstrained & Constrained demand

Sales and Operations planning involves a lot of inputs and data from multiple stakeholders. But if you want to know where to start, then the answer would be an unconstrained demand plan. This tells you the possible demand for your products in the market, then by applying the required constraints you create a constrained plan for the demand you can serve.

"Companies that excel in demand forecasting experience 1/10th the stock-outs of their peers"
Source

Participating Components



Difference between unconstrained and constrained planning

	Unconstrained planning	Constrained planning
Definition	This involves making predictions and planning by taking into considerations inputs from the demand side (involving marketing, sales, etc.)	This involves considering various constraints like resources, budget, production capacity, lead times, etc. from operations, supply chain team, etc.
Key Input	Historical data, trends, and patterns	Constraints like Resources, Capacity, etc.
Planning focus	Understand demand pattern by combining science with collaboration	Balancing demand and available resources
Areas compromised	Does not represent organization's potential to serve	Does not represent the organization's potential to grow.

Normally an S&OP model is used combining both the elements of constrained and unconstrained planning in S&OP, this can create both feasibility and accurate predictions while considering constraints and market insights. This combination can help create new strategies regarding for manufacturing or logistics needs too.

Simple examples to understand both unconstrained and constrained demand

Unconstrained planning

If the demand for a product say biscuits, is 1 million SKUs per month - then the unconstrained demand plan would be made for 1 million.

i.e. the potential of maximum growth

Constrained planning

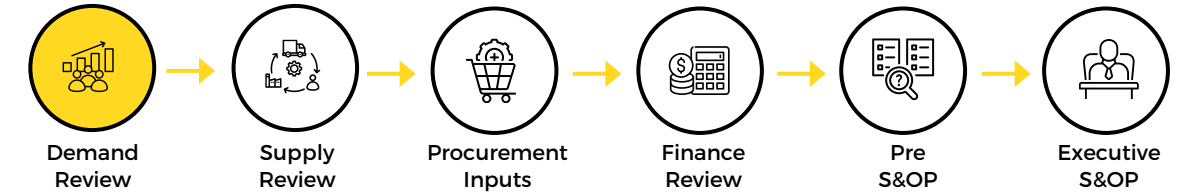
If the production capacity for a product is say, 500k SKUs then constrained demand plan would be for 500k units only.

i.e. the need that can be served by capability

The Foundational stone of S&OP

With unconstrained demand planning as the first step in the S&OP process, you can ensure that you are optimizing your next steps based on the maximum demand you can serve leaving space for potential.

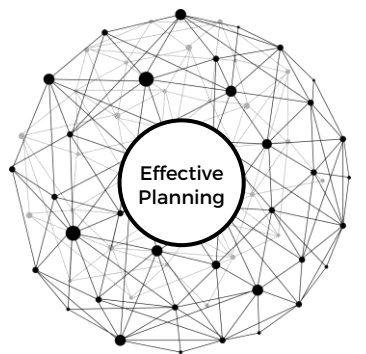
6-step S&OP process



Objectives of constrained demand

The best way to look at it is to create an unconstrained plan for inputs and then apply constraints on it - always remember the output of an S&OP should be to fulfill maximum possible demand while ensuring optimal margins and capacity utilization.

- Minimize cost**
Ensures financial resources are utilized effectively and are cost optimized to help the organization maintain a competitive edge in the market
- Maximize Serviceability**
Consider factors like lead times, production capacity, and inventory levels to ensure that the organization can meet customer demands on time
- Maximize Capacity utilization**
Optimize production schedules, avoid bottlenecks, and utilize resources to their full potential and avoid under-utilization or excess capacity



Ultimately, both unconstrained and constrained planning demand are vital in creating the best possible plan reflecting both the potential to grow as well as the potential to serve. This scope provides organizations the ability to balance demand and supply to minimize stockouts and excess inventory.

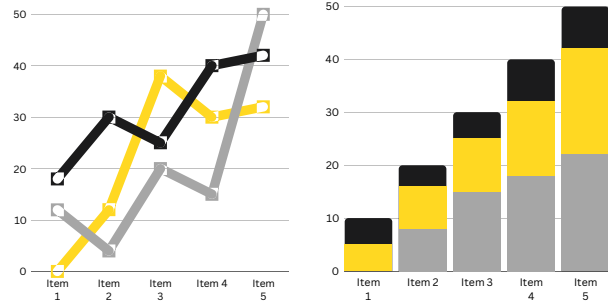
Want to know more about S&OP or demand forecasting reach out to us at marketing@polestarllp.com
 Learn more at www.polestarllp.com



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Constrained & Unconstrained planning

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Participating Components



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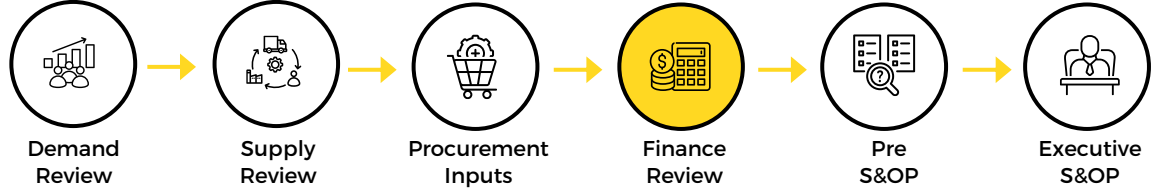
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How is it important for FP&A

The goal of S&OP is to optimize all the processes while keeping the margins at the back of the mind - this can be done by incorporating cost constraints into the forecasting process.

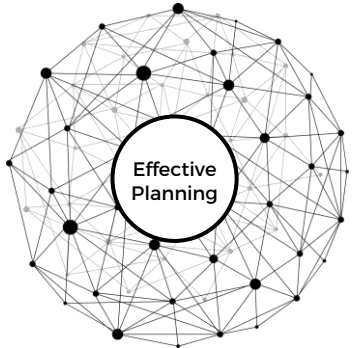
6-step S&OP process - interlinked with Finance



Importance of this Demand-Finance Link

The best way to look at it is that creation of an unconstrained plan at the start will cater to the entire demand for inputs and then by applying constraints on it - you can get something that is feasible to implement.

- Strategy Change**
By identifying the loss opportunity due to constraint, executives can bring strategic changes if needed
- Future plans**
Identifying need for raising more capital, re-negotiation with vendors, change in cash-to-cycle times etc.
- Improve baseline**
Better identification of driver-based forecasts, improved plans, and base-line forecasts to save time and efforts



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Want to know more about financial planning reach out to us at marketing@polestarllp.com
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