

August 2016



## One Size Definitely Doesn't Fit All When it Comes to Supply Chain Optimization

Dear Drew,

For the past several months I have been partnering with the Delaware Valley Industrial Resource Center (DVIRC) in the Philadelphia area in the subject of supply chain optimization. The DVIRC's mission is to help small to medium sized manufacturers in many ways including the application of Operational Excellence concepts. Implementing OpEx or lean concepts within an organization's 'four walls' is a challenge in itself. To apply the concepts up and down the supply chain comes with its own set of challenges.

A 1/2-day general overview was provided to a group of attendees representing a wide variety of manufacturers. Covered were the topics of: strategic planning for the supply chain; the extended value stream, total cost of ownership, and risk management. The attendees participated in a simulation that demonstrated several key phenomena found in many supply chains including: demand amplification or the 'bullwhip effect'; variability and its impact on inventory levels and delivery.

After the overview many companies signed up for a free visit to their sites to understand their challenges relating to supply chain optimization, and to discuss the application of particular concepts

and tools to address specific issues. And Wow! What conversations we had! First a brief description of the variety of companies and their supply chains. There were divisions of large international companies and small domestic ones as well. Most all had an international element to their supply chains. Some of the organizations were positioned early in the overall supply chain, while others towards the end, closest to the ultimate end users. Issues were varied: long lead times for particular items, specific unreliable suppliers, difficulties with inventory management, inaccurate forecasts, unlevel customer demand, logistical challenges (in-bound and out-bound traffic).

### *Creative Approaches to Supply Chain Optimization*

I was impressed by some of the creative approaches that these companies were taking to address particular challenges. For example, one company decided to start a separate business to import particular materials sourced from Europe. They sell the materials domestically providing short lead times to customers, including themselves. Now this wasn't just 'shifting' inventory. The new business is very viable economically. And this was a small business (annual revenues of ~\$5M) who did this creative, 'out of the box' approach. One company was located across the street from its primary supplier. One day lead times were a result. Another company that already had 38 inventory turns per year, but not resting on their laurels, was creatively working with third part logistics (3PL) organizations to level the inbound deliveries with a goal of 1-hour 'windows' to increase inventory turns further still. Yet another company was regularly receiving inventory information from key customers which provided actual usage data in near real time - valuable information lost in the placement of periodic purchase orders to suppliers as most organizations do. Therefore, the company was better able to manage the inventory and provide better service to customers - a 'win-win' situation for all parties.

This last example demonstrates the need to look at the entire supply chain, not just backward to your suppliers, but forward to your customers and even your customers' customers. The key to optimizing portions of the supply chain may lie downstream at the customer. I have worked with several suppliers to a major retailer who had difficulty with forecasting demand and inventory management. This created a strong 'bullwhip' effect for the suppliers and in turn their suppliers. The customer ultimately agreed to provide point of sale data to the supplier which reduced the dependency on forecasting, as well as the bullwhip effect.

### *Keys to Supply Chain Optimization*

Therein lies the keys to supply chain optimization:

- Expand your focus to the fully extended supply chain
- Engage key players in the supply chain to identify opportunities for creative collaboration

Don't fall into the trap of thinking "what my customers and suppliers do and how they do it are out of my control". What is a problem for you is probably a problem for them. The key is to identify the key points in the supply chain that are in need of improvement. Value Stream Mapping is a powerful tool to help with this. Consider assembling a cross-company team of key suppliers and customers to create a current state map of the extended supply chain. Years ago, I facilitated such an exercise for a garment manufacturer. A key improvement in the future state was to 'near shore' key suppliers, resulting in an average 90 day reduction in total lead time (and inventory).

Begin discussions around improvements that can have mutual benefit. Work together on the agreed upon improvements. At one company in the pharmaceutical industry a key optimization lied with the packagers. Packaging services were performed by an outside company that received the product, packaged it, and shipped it back to the pharmaceutical company

who would then distribute it. The challenge lied with the packager and their large batch processing practices (also called 'campaigns'). This was creating a 'ripple effect' of demand for the pharmaceutical company causing significant swings in production and inventory. During discussion with the packager, the root cause for the very large campaigns was their very lengthy changeover times. A member of the pharmaceutical company went to the packager to teach them quick changeover concepts, and facilitate a rapid improvement event on one of their packaging lines. The result was a 70% reduction in changeover time. This allowed for more frequent, shorter campaigns that resulted in more level demand to the supplier. In time the pharmaceutical company was able to reduce ~\$30M in inventory as a result. To emphasize, it was the supplier who went to the customer to initiate this highly collaborative effort. Talk about true supply chain collaboration!

### *Summary*

It is such collaboration between particular players at key points in the supply chain that can result in win-win improvements that provide significant benefits to everyone. Where in your supply chain do such opportunities lie? That will depend on the current state of your supply chain network, and your strategy going forward. As the title states, 'one size definitely doesn't fit all' when it comes to supply chain optimization. So begin analyzing your extended value stream and engaging key players and see where the path leads. It could be the beginning of a great journey.

Best Regards

Drew Locher

Managing Director, Change Management Associates

**Host an Application Based Learning Event!**

We are looking for organizations willing to host application based learning events. Here is how it works. The host company can select a subject, a 'gap' in its current body of knowledge in the subject of Lean or Operational Excellence. We will come on-site to facilitate an application based event in an area of your business, providing real benefits to your organization. Guests from other organizations will be invited to participate which will significantly reduce the cost to the host company, in some cases even free. The guests will serve as 'outside set of eyes' as well as 'hands and feet' to assist in the implementation of the selected concept. Application based learning is the most effective way to develop the requisite understanding and skills in any concept. Value Stream Mapping, Pull/Kanban, Cellular/Flow, Total Productive Maintenance, Quick Changeover, Office or Production Kaizen events.....you pick the topic. Simply reply to this email and we can discuss the possibilities. We hope to hear from you.



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