The question of "Supply Chain Management"

Many manufacturing organizations consider "Supply Chain Management" to be a separate initiative from Lean/TPS to further achieve cost reduction. That's because in many manufacturing organizations, there's a perception that a large portion of cost lies in the material purchased from suppliers. A typical Tier1 supplier in the automotive industry, for instance, has a cost structure where 80 percent of the dollar is spent on material while 20 percent is split between labor and capital. As a result, there is strong interest in reducing material cost at the supplier level. But is focusing on material purchase price the right approach? Is it true that 80 percent of the cost is in material? In today's hyper efficient free market, the price reduction of a commodity along the supply chain is quickly reflected in the price of the finished good. Therefore the purchase price of the material is always simply passed on. It's only in the design and transformation of a product, or in the delivery of a service, that value is created and price increases are justified. That's because behind the design, transformation and delivery of a service lies human activity that must be compensated. Therefore, the larger portion of the potential cost reduction can only be realized around reducing the portion of human activity.

Let's take an example to illustrate the point. ABC, Inc. sells a good to its customer for $10. Looking into the accounting of that company we find that the cost structure is as follows: $7 for material, $1 for capital, $1 for labor, and $1 profit is generated. Now let's go to the suppliers of ABC, Inc. There must be at least 2 suppliers: one to provide the $7 part and another to provide the $1 of capital.

First, why did the part from the supplier cost $7? It's because the raw material supplier has its own raw material cost, capital cost and labor cost and of course a small profit. Assuming the cost structure of the supplier is the same as the cost structure of ABC, Inc., $4.9 is raw material cost, $0.7 is labor, $0.7 is capital and $0.7 is profit. Inasmuch, the capital supplier has its own cost of material, $0.049, capital $.07, labor $0.07 and profit $0.07. If we keep going backward from the customer to the supplier all the way back to the first supplier, we will soon discover that along the supply chain, a much larger portion of the cost lies in labor. That indeed along the supply chain all we have done is paid labor to make parts to allow the customer to, in turn, produce goods. Machines don't get paid, rather people who make them do. Materials don't get paid, rather people who produce them do.

To think that the largest portion of the cost is upstream, at the supplier and in the materials, is dangerous. It often constitutes an excuse to avoid addressing the real issue of waste in processes. It's easier to request a cost reduction from the supplier than it is to work within our own processes to take out labor cost. If at the end 100 percent of cost can be traced back to laborr, then each process along the supply chain must focus on reducing its own labor cost first. It is the only way to achieve a true cost reduction in the end. Instead, we often see big OEMs like Ford and GM and,

unfortunately even Toyota at times, forcing cost reductions at the supplier level by just asking for a price reduction. This is very poor leadership on behalf of the OEM. Many of the suppliers in the automobile industry are in trouble. They have not been able to truly reduce their cost. To pass on a price reduction to the customer, they have had to reduce profits instead of developing true waste elimination capability. In turn, therefore, the Tier 1 supplier will also go to its supply base and request price reductions. Instead of focusing on process, companies focus on how to manage suppliers. They should be addressing the activities in the process. In the long run, this will bring less savings and more antagonistic relationships than true waste and cost reduction. This is why Lean must focus on reducing labor cost. When focusing on reducing material cost, it is the amount of inventory in the system and in the design of the part that must be addressed.

For that reason, Supply Chain Management utilizes many of the same basic kaizen activities that happen within the walls of an organization. It just happens that these activities are taking place between suppliers and customers as opposed to between suppliers and customer processes in a plant. Certainly, other challenges, such as legal, can arise, but fundamentally, the principles utilized are similar as only the scope changes.

Therefore, to be successful, “Supply Chain Management” must follow Mr. Ohno’s path. The path to successful “Supply Chain Management” is to first create a supply chain of processes within the plant. It is to create simple flow (more than just continuous flow) and to continue to reduce cost through Jidoka and Just-in-Time. If this capability does exist within the company, where managers have direct control over the processes and the workers, how can it be developed between customers and suppliers? It is only after TPS was started within Toyota that Mr. Ohno took charge and started working with the suppliers to develop their capability of reducing waste.

Beyond such activities, tools can be integrated using specific technologies (business to business Web, radio frequency material tracking, ERP systems such as SAP, material logistics cooperation, etc.) and contracts (law-based formalized relations, where information that would otherwise not be shared is now shared) that can facilitate transactions between suppliers and customers. But they are only technologies, not business models. As a matter of fact, Oracle/PeopleSoft, SAP, IBM, Accenture and many other “Information Technology Firms” contribute to the confusion. They bring forward a tool but call it a business model or even a management system. The business model behind the Supply Chain Activity is the elimination of waste. Just like behind a drug is medicine and its fundamental principal of science.