



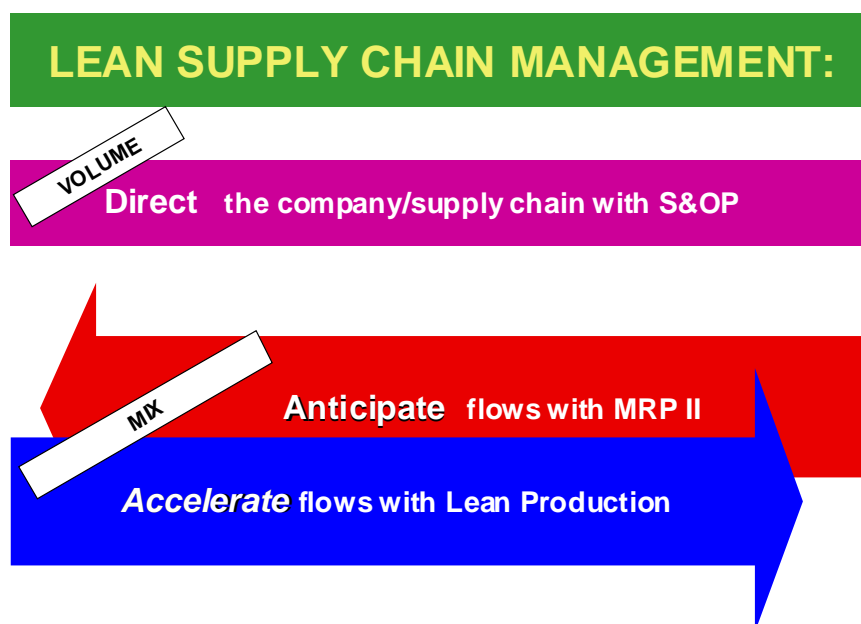
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May 20, 2007

CUSTOMER-SUPPLIER COMMUNICATION I: NORSE DAIRY SYSTEMS : BRILLIANT BASICS

A good example of how to work with suppliers, comes from Norse Dairy Systems (USA), a long-time client of one of our U.S. partners, John Civerolo. The 4 factories of the company make ice cream and other dairy products for customers like Unilever, Nestlé and M&M Mars. Our story concerns managing the suppliers of cups and lids shipped directly to customers, a \$30 million business.

Their supplier management is much more than just physical logistics and transportation. It includes *Direction*, *Anticipation* and *Acceleration*, the three components of Lean SCM :



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The strategic level of Lean SCM, *Direction*, with Sales and Operations Planning (S&OP) and its associated functions, plays a major role. The first associated function, Demand Management, handled at NORSE by a Demand Planner at headquarters, furnishes demand by finished-goods item number which (1) is totalled by the central Master Production Scheduler to obtain Productions Plans for the S&OP by family by month, and (2) is used by the Master Production Schedulers in each factory to create an MPS by item over the next 12 weeks.

For the 20% of the 300 'ice-cream' items representing 90% of sales, forecast errors are analyzed to determine the root cause. Corrective actions are decided and implemented with specific responsibilities to improve the quality of the demand plan.



The MPS is part of *Anticipation*, on the operational level of the supply chain. To close the loop with the S&OP on the upper strategic level, the MPS's are added up and reconciled with the monthly Production Plans created previously by the central planner. NORSE uses BPCS software for this.

A *Purchasing Pre-S&OP for Direct Deliveries* assembles Sales for the demand side and Procurement for the supplier-capacity side. Prior to the meeting, possible problems have already been communicated and analyzed. If necessary, the supplier himself is 'invited' to the Purchasing Pre-S&OP Meeting for Direct Deliveries.

Concurrently, each of the 4 factories holds a *Site-level S&OP* meeting lasting 2 hours, called « Demand and Operations Planning » (D&OP) instead of S&OP because the Sales function doesn't exist in the factories. But demand definitely does exist there.

Finally, in Norse's *Executive S&OP Meeting* at headquarters, in view of the strategic importance of direct deliveries in the performance of the company, the Direct Delivery Department participates. Supplier performance and demonstrated capacity are reviewed.

From Norse's S&OP process, the suppliers of the 2500 part numbers of cups and lids, receive a demand forecast over 6 to 12 months, by family. Suppliers plan their raw materials and the capacity required to cover demand. The performance measurements of this *Supplier S&OP*, created for the most part by Norse, compare plans and actuals.

The *Direction* dimension is also represented by *Capacity Planning for Key Suppliers*. The plan for a supplier with 3 work centers, Form, Punch and Print, shows the total demonstrated capacity for each work center as well as the part of capacity for Norse. The suppliers calculate their demonstrated capacity for this plan, and experience shows that actual capacity utilization is fairly stable and in line with demonstrated capacity.

Anticipation, which already gives demand by individual finished product at Norse to be input to the Master Production Schedule and Material Requirements Planning, continues with the creation of purchase orders giving the item number to be delivered within a 2-week lead time. The purchase order specifies the product size, printing colors, the text and artwork, and the quantity and the due date. The delivery performance is 96% on time, -1 / +0 days and +/-10% in quantity. All suppliers making direct deliveries perform at 96% or above, generally 98%

Acceleration with Lean has been implemented in all Norse factories to stabilize their processes. Suppliers benefit directly, and Norse encourages and helps its suppliers to duplicate its Lean initiatives. Among the benefits obtained from Lean by Norse are better capacity utilization, which results in higher productivity, lower inventory in the factory and in the stockroom, and shorter lead times.

Since Norse has reduced its production downtime by 51%, lowered scrap by 55% and reduced over-weight production by 38%, its requirements for its suppliers are more stable.