



## PRODUCT PROLIFERATION: THE SCOURGE OF THE LEAN SUPPLY CHAIN

*By Leonard Sahling*

Supply chain executives are used to working under pressure. Every day, they are expected to increase inventory turns, improve delivery times and accuracy, and reduce operating costs at the companies they serve.

Product proliferation – the virtual explosion in the number of individual SKUs [stockkeeping units] that has occurred over the past decade or so – poses a major challenge to supply chain managers and has added untold millions to the cost of companies' logistics operations.

Product proliferation is in large part the result of the trend toward "mass customization" – under which middle-class consumers are insisting on getting custom-designed, personalized products at affordable prices. Other trends and established business practices also contribute to the problem, such as retailers' demands for private brand labels, custom labeling, and the increased use of store-ready displays and promotional packs. Globalization too plays a role. Products must be modified to meet the varying regulatory requirements of different countries, and product labels must also be translated into different languages.



As part of its ongoing supply-chain research program, my company recently sponsored a poll of more than 30 supply-chain executives across a wide variety of industries. Many executives cited product proliferation as a major challenge, and they were then asked what they're doing to manage it.

Two broad themes emerged from those conversations: One, many companies attempt to prune their product portfolios regularly and have developed various procedures to identify redundant or obsolete SKUs that are candidates for discontinuance. Two, so-called "postponement" has emerged as the most effective strategy for dealing with the ill effects of product proliferation.

### **Hidden costs**

Based on conversations with the supply chain executives, it's apparent that many companies don't fully appreciate the true cost of carrying too many SKUs. One supply chain executive who was interviewed, for instance, worked at a CPG manufacturer. He estimated that a full 10 percent of his company's products weren't making it to store shelves because of unsynchronized product IDs. The company didn't realize customers were attempting to order products that were no longer in stock, and customers often weren't aware there was a new product available in place of the discontinued item.

Another executive who was interviewed complained about being forced into overflow warehousing because of expanding product lines – and that products were being handled up to three times before an order was completed.

### **Managing through postponement**

To combat these problems, supply chain managers are increasingly adopting “postponement” strategies that delay the production of finished goods until the receipt of firm orders from customers.

For example, one food products manufacturer had seen the number of SKUs in a single product line go from 40 to over 800. In addition to depressing the bottom line, the finished goods inventory was taking up an exorbitant amount of warehouse space.

The manufacturer’s solution was to replace its label-to-stock manufacturing strategy with a label-to-order strategy, where product was stored in inventory in a generic unlabeled state at the plant. When a customer placed an order, the product was labeled and shipped to the manufacturer’s distribution center. There, the private-label product was merged with other product destined for the same customer. The customer experienced no increase in delivery times, and the manufacturer was able to reduce transportation costs by shipping product in efficient truckload quantities.

We also talked to a hardware company that relies on Chinese manufacturers to maintain lower product costs and its competitive edge. The company’s private labeling requirements had grown by a factor of 15 times within just a few years, resulting in a dramatic increase in its finished goods inventories. The problem was compounded by long lead times from Asia.

The company adopted a postponement strategy to allay the run-up in costs. Product manufactured in Asia is now shipped to a packaging center located in Mexico, where it is stored until orders are received. Once an order is received, labeling and packaging are performed in Mexico at labor rates equal to about one-fifth of the U.S. rates. Final products are then shipped to a U.S.-based distribution center. The DC carries inventory of all end-items, but the total inventory is significantly reduced because order points are based on a six-day lead time from Mexico rather than six-week lead times from China.

### **Conclusion**

Warehousemen are fond of quoting an old adage that, “Everything in its place, and a place for everything.” Insofar as product proliferation leads to more “things” – that is, more SKUs – companies must then expand the space in their distribution centers to accommodate them. In turn, however, as the number of SKUs escalates, so does the pressure on companies to control, limit, or even shrink the number of SKUs. This is one challenge for supply chain executives that is never going to go away.

The bottom line is, mass customization is here to stay.

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