





"The essential, underlying question is: How do I make both my top line and bottom line better, given that inventory is both an asset and a liability?"

> KEVIN STADLER CEO 4R SYSTEMS

4R Systems is a leading provider of advanced inventory and supply chain services, which help retailers gain significantly increased profits by optimizing their inventory and related supply chain decisions. Founded by supply chain experts from The Wharton School and Harvard Business School, 4R provides capabilities that profit optimize the matching of supply and demand. From initial launch through replenishment to end-of-life for products—ranging from shortlived fashion items to long term staples-4R provides retailers with services that fit their business. Clients using 4R have seen increases in profitability of 1-2 % of sales as a result of higher sales levels on lowered inventory. Call (610) 644-1234 or visit www.4rsvstems.com.



Making Inventory Profitable

Q: Do retailers currently analyze inventory in terms of its ultimate impact on profitability?

KEVIN STADLER: At the CEO level, retailers do look at inventory relative to profitability. But individual departments may have incentives and KPIs different from overall profitability. A merchant typically wants to carry as much inventory as possible to cover potential demand, but that can obviously affect bottom-line profit if they end up with too much inventory. Financial constraints may dictate that inventory is absolutely minimized, but that could result in lost sales. So while inventory overall is looked at from a profitability standpoint, it is not always regarded as a balance between an asset and a liability. Many of our clients understand this is how we should be looking at it, and yet their individual departments are set up with conflicting goals: maximizing sales vs. minimizing inventory. There's a seesaw that goes back and forth rather than a nice smooth look at profitability. The essential, underlying question is: How do I make both my top line and bottom line better, given that inventory is both an asset and a liability?

Q: How can retailers make inventory decisions such that they combine in-stock maximization, carrying cost minimization and bottom-line optimization?

STADLER: First, retailers have to build a financial model that mirrors their inventory strategy and use it to forecast what they are trying to achieve relative to risk. On the one side there is the risk of having out-of-stocks and on the other the risk of investing too much money. So if they apply the model to the forecast, they will get a clear picture of how, for example, they should maximize in-stock relative to risk, looking at it from a margin standpoint. The other critical capability is that retailers need the ability to set inventory at a very granular level. Best practice is to set it at a by-item and by-location (including online) level, but there needs to be one more level of granularity most retailers don't consider — by unit. That is, while the first unit has a very low risk associated with it, the second unit has a little more, and so on through the rest of the inventory. In this way retailers can optimize their bottom line by positioning inventory across their omnichannel capability to satisfy demand.

O: How has omnichannel retailing — and its many demands on inventory visibility and availability — complicated the profit optimization calculation? STADLER: Retailers now need to have this granular understanding of how much inventory to devote to each of their fulfillment capabilities, whether it is in store or online. In

tory to devote to each of their fulfillment capabilities, whether it is in store or online. In the past, a retailer could separate inventory into those silos and not look across the entire enterprise. But in an omnichannel world, you need to be able to service customers with products wherever they might possibly buy them. If a retailer has products in the wrong location, they will incur shipping costs or the cost of inventory lying fallow in a location where the customer is not buying it. Omnichannel has magnified the complexities of the supply chain.

O: How does customer satisfaction figure into the calculation of inventory and profit optimization, especially in an omnichannel world?

STADLER: In industry surveys of customer satisfaction, product availability is always the number-one factor. Customers want a product when and where they want it. They don't have patience anymore to wait for an item; indeed they want the instantaneous satisfaction of being able to shop and get an item immediately. Just look at the showrooming phenomenon. If a customer shows up and the item is not available or is just on display, you can almost guarantee she will hop on her cell phone to see where it's available and the sale is lost. So knowing where to position inventory is the key to customer satisfaction and retention.