Safety Stock: Insurance for Customer Service

By Jason Bader

One of the most common inventory management questions I get is, "Hey Jason, I keep running out of my A items and I seem to have a boatload of my C and D items. How do I fix this?" The challenge that these folks are describing is a real killer when it comes to inventory investment. We invest in inventory to serve customer needs. Running out of the A items can make the supply house look unreliable in the eyes of the intended customer base. I should point out that defining the ranking in this request is critical to finding a solution. In this scenario, I suspect that "A" means "highly popular with the customer base". Incidentally, "A" could mean "high cost of goods sold" in the software, so we need to know how we are defining the alphabet soup. Beyond just being a let down to the customer base, high levels of inventory in the slower moving products can be a drain on investable cash. So, what's the answer? Go back and check your safety stock settings.

Let's face it, one of the biggest components of customer service is having the right stuff at the right place and at the right time. One could argue that "right price" could be part of that mix, but that isn't the point of this article. Looking back at the above stated challenge, we are really talking about making sure that the inventory is in balance. Make sure that we satisfy our customers to a high degree within the bounds of investable cash.

In distribution, we have a couple of anomalies that make it difficult for us to maintain this perfect balance. The first anomaly is erratic demand. This refers to the fact that our crystal ball is unclear as to when our customer is going to order a product and how much they are going to order at that time. The second anomaly is supplier lead time. Although a supplier can give you a ballpark estimate as to when a product will hit your dock, this is not always a perfect science. Life happens in both anomalies and therefore we "insure" items against running out of stock.

On the sales end, it is common that a large unknown sale will wipe us out of stock. While the sales team might be in celebration mode, the inventory management team finds themselves scrambling to replenish this stock out. If they don't, the celebrants tend to look unfavorably on this team when an order faces a blank shelf. Instead of pointing fingers, the sales team might have done their part to smooth this stocking situation. When a customer orders an abnormal quantity of an item, are we certain that they are going to need everything immediately? That is the assumption; but without further investigation, we don't really know. In order to smooth out the inventory level and preserve a little stock for orders generated during the replenishment period, I would like to have the inside sales people ask the customer when they need the whole quantity. Could the customer take a chunk to get them started and the balance in a few days? Perhaps the whole quantity could be drop shipped from the supplier. This is how sales and replenishment can work in tandem to improve customer service.

On the supplier end, the lead time days are usually consistent. Unfortunately, suppliers are subject to the same life altering events that we experience. They could be experiencing scarcity in critical raw materials. Disruptions in transit might push them back several days or weeks. A few years ago, I recall a longshoremen's strike in Southern California. This caused wide disruption in the supply chain. Back when I was a distributor, I remember when one of our key suppliers went through an MRP software conversion. They couldn't ship consistently for 6 months. Regardless of the reason, we need to do our best to be prepared.

Safety stock is our insurance policy against stock out. Conceptually, we buy additional inventory to protect us from these anomalies. Ideally, we will never dip into this extra stock. In a practical world, we will dip into this safety stock on a regular basis. Given that we have a limited amount of money to invest in inventory, how should we apply our insurance to give us the best shot at satisfying the customer? There are couple of schools of thought.

Some advisors believe that you should boost the safety stock on items with a high degree of volatility or unpredictability. In this camp, advisors will base their advice using mathematical formulas such as standard deviation to determine predictability. While I don't dispute that this high-brow reasoning makes sense, adding inventory to those products further away from the standard deviation, I tend to follow a little more low-brow approach. I believe that we should add safety stock to our highest hit products. These are the items that our customers request most often and expect us to have on the shelf when they call. This falls in line with my belief in a customer-centric view of inventory management. Listen to your customer and they will tell you what to put on the shelf.

By this method, we should be using our software settings to drive up the safety stock on high hit items and minimizing (or eliminating) safety stock on the lower hit items. Going back to our scenario at the top of the article, we can see what probably happened to this company. They didn't pay attention to their safety stock settings. Look, I get it. For those of you who have had the pleasure of going through an ERP implementation, where was "safety stock settings" on your list of priorities? If you could enter an order and generate an invoice in the first week, life was good. With every question that needed to be answered or field that needed to be set, sometimes we just left the default in place. With safety stock, this meant that all items were treaded the same. If all stocking items are treated the same, with the same amount of calculated safety, you can see what happened. The high hit items were not given enough safety which created stock outs. The lower hit items were given too much safety and we found ourselves in a surplus situation.

If you find yourself struggling with this inventory imbalance, I ask you to do a little investigation on how safety stock settings are applied in your distribution software package. Some allow you to apply a percentage, others like to see days of stock as the setting. Regardless of the method, both are basing the setting on usage during the lead time, remember this simple piece of advice. If you want to be in the customer service business, add insurance to the items your customers are asking for most frequently. By applying a little extra money to these high hit items, you will give yourself the best chance of having the right stuff at the right time and in the right place. If you have further questions about this topic, or any other distribution related conundrum, I am just an email away. Good luck.

About the Author:
Jason Bader is the principal of The Distribution Team. He is a holistic distribution advisor who is passionate about helping business owners solve challenges, generate wealth and achieve personal goals. He can be found speaking at several industry events throughout the year, providing executive coaching services to private clients and letting his thoughts be known in an industry publication or two. He can be reached at (503) 282-2333 or via email at jason@distributionteam.com. You can find additional resources on his website: www.thedistributionteam.com