

Grow your Sales by 25%: Make-to-Order or Make-to-Stock?

Should you Make-to-Order or Make-to-Stock? Many manufacturers are faced with this choice when determining how best to satisfy customer demand. This choice is so critical to successful growth that most manufacturers will tell you, within 5 minutes of discussing their operation, which choice they have made. In our experience in talking with literally hundreds of different manufacturers – from food companies to hi-tech to industrial goods to automotive suppliers - almost all of them believe that Make-to-Order is the desired course of action. Many of them admit, however, that they currently are Making to Stock but are in the midst of implementing some form of LEAN Manufacturing that will get them closer to an Make-to-Order (MTO) environment.

Based on our experience, we are proponents of Make-to-Stock (MTS) – however, it is not the traditional MTS approach but significantly different, it is the Theory of Constraints approach to Demand Driven Replenishment. Why do we prefer this approach to Make-to-Stock? Simply because 9 times out of 10, your customers' orders (the nirvana of what we must respond to) are actually forecasts in disguise – their best guess of what they think they might need to cover their expected demand. Demand Driven Replenishment (DDR), on the other hand, which includes the right quantity of inventory, with the right replenishment approach, held in the right location, ensures that your customers always have what they need. This approach often leads to sales increases from existing products in excess of 25%.

Let us explain this position in a little bit more detail. To do this, we will answer the following 4 questions.

- Why is the traditional MTS approach often considered less desirable?
- Why is the MTO approach often considered more desirable?
- Why do customers of MTO suppliers still have so many urgent orders?
- What changes need to be made to the way we make-to-stock for it to become the desired approach – a Demand Driven Replenishment approach?

Why is the traditional MTS approach often considered less desirable?

Most traditional MTS manufacturers do so according to some kind of forecast. In our experience, there are only two kinds of forecasts – wrong and really wrong. It is a scientific impossibility to forecast accurately at the item number level - the level at which all manufacturers produce products. Therefore, making to stock with an inaccurate forecast will unavoidably lead to too much of the wrong inventory (inventory that customers don't need now) and not enough of the right inventory (inventory that customers need now).

Why is the MTO approach often considered more desirable?

Many manufacturers believe that MTO is desirable because it minimizes operating costs. Within the LEAN Manufacturing framework, a manufacturing process should strive for perfection by reducing the non-value added time and activities. A Perfect Pull System implies a Manufacturing process capable of

satisfying customers' orders in the shortest possible lead time, with zero defects, and with the lowest level of inventory possible. MTO is often considered more desirable because it is *perceived* to reduce inventory while simultaneously reduce reliance on an inaccurate forecast, thereby improving product availability for the customer.

Would MTO still be considered more desirable if a customer's order wasn't what he really needed? Does MTO really reduce reliance on an inaccurate forecast? This leads to the next point of discussion.

Why do customers of MTO suppliers still have so many urgent orders?

If your customer has the products that he really needs, shouldn't his expedited and / or urgent orders be close to zero? We claim that most customers' orders are not a true reflection of what they really need because the following issues are still too frequent: the number of customer emergency orders suppliers experience, the number of times the customer changes his order (quantities of items), and the amount of surplus raw material inventory the customer holds.

The above negative effects are strikingly similar to a traditional MTS environment that is building to forecast. In fact, most MTO environments end up with too much finished goods inventory - the same as traditional MTS environments. The difference of course is that under the MTO approach, the inventory is sitting at the customer's site – as Raw Products - versus at the supplier's site - as finished goods. In either case, the system has produced too much of the wrong and not enough of the right inventory. This can only happen if your customers' orders are not a true reflection of what they need, but a forecast - their best guess.

What changes need to be made to the way we Make-to-Stock for it to become the desired approach – a Demand Driven Replenishment approach?

So how do we manage an MTS environment that simultaneously reduces a manufacturer's cost and many of the negative issues the customers' face? The answer is to stop using either customers' orders or the forecast when deciding how much to make. Instead, the manufacturer establishes a dynamic buffer of inventory between them self and the customer. This inventory buffer is sized to protect for the maximum use or consumption from the customer over the supplier's replenishment time.

The preferred location for this buffer is at the customer's site. The supplier ensures the inventory buffer remains close to the target inventory level as the customer consumes the products - no orders are placed. Instead, the customer frequently communicates their consumption of products and the supplier maximizes its own efficiency, both in production and in shipping. The size of this inventory buffer is minimized due to two reasons. First, producing and shipping to your customer's consumption drastically reduces the variability in the order size – since the supplier is no longer producing to the customer's order forecast. Second, the supplier embarks on replenishment time reduction activities (primarily using LEAN manufacturing techniques).

In order to convince the customer that their service levels will improve without ordering, the manufacturer offers the customer a performance guarantee based on ensuring excellent product availability. This performance guarantee demonstrates the seriousness of the offer and blocks competitors from naively making the same promise.

Manufacturers using the DDR approach have achieved significant results. Their customers' shortages and urgent orders dropped, leading to an increase in sales by at least 25%. Second, their customers' surplus inventories were almost eliminated. As for the manufacturers, the reduction in shortages and urgent orders from their customers led to fewer expedites and less overtime in the plant. Fewer expedites led to an increase in predictability, shorter lead times and lower costs. However, the biggest benefit to the manufacturers was the 25% sales increase coming from their customers.

Conclusion

When choosing between MTO and MTS you will find that the financial benefits from cost reduction pale in comparison to the magnitude of the customer service level improvements. Any manufacturer we have worked with, that has focused on reducing customer shortages, expedites and urgent orders using DDR, has always achieved significant growth in their sales and profit - an amount far in excess of the cost reduction potential. The best way to realize these benefits is to follow the Demand Driven Replenishment approach of Make-to-Stock.

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