

DO YOU REALLY NEED A WAREHOUSE?

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If you are supplying the construction industry, you may have noticed the current wave of industrial building. There are large extensive modern structures rising up at almost all motorway junctions. The constructor's board will identify the building as a new extensive warehouse for rent or for a prestigious enterprise.

It may be impressive to have a large new building, but is it essential? In reality a company that puts its name on the side of the warehouse is advertising the fact that they cannot control their supply chain. If you think of the facts, this is an obvious conclusion. The warehouse represents a break in the flow of the supply chain. If the supply and demand are organised properly, then there should be no need to store large quantities of items.

Anyone owning a warehouse full of stock can justify their inventory by a raft of 'reasons'

- unreliable supply
- batch quantities
- variable demand
- customer power
- unreliable quality
- fixed production output
- short demand lead time
- or other more devious excuses.

But is that the real situation? Stock is a result of mis-match between supply and demand. That is an opportunity for improvement – not inventory. The opportunity is to go lean – to improve the flow along the supply chain so that there are not these terrible breaks where the inventory rests for days or even weeks.

There are many factors that contribute to the warehouse fiasco. One simple cause is management targets. We know in manufacturing that the most efficient way to produce is to have consistent level demand, preferably on a daily basis. In view of this, what objectives does the average company give to its sales and purchasing personnel? For purchasing are they still about getting the unit cost down by bulk buying? This often leads large deliveries, which are late because the supplier cannot manage to make this large quantity in time with the capacity available and the rest of the order book.

For sales, the target is to hit budget – it is nothing to do with feeding in the demand at a constant rate and limiting it to the mix and capacity for ideal production efficiency. In fact, sales people are often paid a bonus for gaining orders in quantities and timescales which cause much heartache and disruption within manufacturing and purchasing. As a result there is buffer stock to compensate for the failure to supply, and stock the unwanted part of the batch. You would have thought that the customer focus of suppliers would extend to ensuring that customers don't pay extra for supply chain inefficiencies. It is costing between 1% and 2% of the inventory cost per month to store stock in the warehouse.

What are the alternatives? Understand your supply chain. Concentrate on forecasting and flow.

FORECASTING

Everyone in operations management forecasts. By buying a box of materials, making a list of jobs to do tomorrow, or

budgeting, we are forecasting. The discussion is about the quality of the forecast and its use, rather than whether it is possible. OK - the forecast will be wrong – but we are striving for one that is only a little bit wrong. Better forecasting improves availability and reduces safety stock (through reduction in the MAD). In some companies forecasting is a lost art, so they end up with high stocks.

Those people attending the recent seminar on 'Fundamentals of Operations Management' had the clear message reinforced that it is more important to reforecast frequently than to have a very sophisticated forecasting.

Similarly, if the stock is high, it will last a long time, so replenishment is for a long way ahead, and therefore more difficult to forecast accurately. Take out the stock and the forecasting becomes shorter term and easier.

It is obvious that forecasting is cheap – inventory is expensive. Even highly developed forecasting software costs £10,000s, whereas inventory can be in the millions.

FLOW

If we consider the normal operation of a supply chain, items get carried about in batches and supplied from a series of warehouses. If a customer orders in ones, the supplier re-orders in tens, the distribution warehouse replenishes in hundreds, the manufacturer produces in thousands, and then wonders why the master schedule is so variable!

If manufacturing produce at the same rate that consumers use, then there is no need for warehouses. Often the suppliers do not receive information on the end usage, and no-one is managing the overall supply chain. As a result there is a reactive culture and even a duplication of stock from one stage in the supply chain to the next.

Transshipment points are required, but without the inventory. It should be a case of straight in and out. Inventory is only useful in the middle of the supply chain if the forecasting is poor. Techniques like fair shares analysis will ensure that inventory is distributed logically where there are several competing customer demands to satisfy.

COSTS

Inventory is no longer thought of as an asset – just a nuisance. Most of these warehouses are full of stock. Do we believe that they were built just the right size, or is there some unnecessary inventory, even by current standards. The end users are paying for this inefficiency. In order to compete we will have to get rid of the warehouses of stock.

About the author

Tony Wild, MIOM is a specialist in materials management and logistics. He has been involved with the development of integrated logistics in Europe, with an emphasis on rapid customer service for items such as IT spare parts. Tony was a practitioner and now heads Midas Consultants who advise and train major companies in inventory and supply chain management. A member of the Institute of Operations Management, Tony is also author of the book 'Best Practice in Inventory Management'.