

SUPPORT WAREHOUSES

In this article, Horizon Inventory takes a look at the role supporting warehouses can play in assisting you to service your customers

Servicing customers can be challenging. When do they need stock? Immediately some say. "I have to be able to hand it over the counter when they walk in or they will walk straight out," say some branch staff. Did I hear you say "all staff"?

Now if every customer wants all of the stock within minutes of a request this can be especially difficult and require a LOT of inventory which is often just too big an investment hurdle.

Normally you will hold stock locally at a branch or back at the DC. There is however a third option - to hold some stock at what we call a supporting warehouse - as the Beatles remind us, we can get by with a little help from our friends.

Supported and Supporting Warehouses

Now what do we mean by a supporting warehouse and how does a supported branch or warehouse take advantage of this support?

You start by determining the service level required at the branch. This sets a min/max stock level and the branch requires regular replenishments from a central DC.

At the branch you might set the desired service level at 90 percent as you believe or have evidence to suggest that 10 percent of the orders will not be required over the counter.

This situation often means you can get by with significantly less stock at the branch, however, the 10 percent needs to come from a supporting warehouse (typically a nominated branch on inventory steroids) that is sufficiently close in order to satisfy your customers' delivery window expectations.

In this scenario, the demand represented by the 10 percent of orders is placed upon the supporting warehouse. This sort of strategy works especially well when the variability of demand is very high and you have a warehouse supporting multiple branches. The variability will be smoothed at the supporting warehouse, reducing the inventory risk.

This approach requires substantially less safety stock at the supporting warehouse and certainly a lot less than if you had carried all of the safety stock at the supported warehouses individually.

Supported by knowledge

Several factors are important to consider here.

Some products are required and expected to be immediately available. If you wish to compete for this business then you must be able to provide the stock when it is required. If the part is for a breakdown then the requirement tends to be immediate or very quick at least, so stock right at the point of purchase may be your only option.

Fortunately not every product is expected to be available over the counter, or at least there may be some customers who are less demanding and are able to wait. These products can present the opportunity to stock at least some of the stock upstream or at a nearby supporting warehouse from whence you have time to access the remote stock.

At the end of the day, everything has a price and if people want products immediately then they are often prepared to pay a premium for that level of service. Similarly as a supplier, stocking large lots of stock very close to the customer can mean exorbitant inventory costs. There is a balance point obviously, and the optimum will depend on the way different customers and different types of product behave.

Of course, you have to recognise that at times you will "sing out of key" and things won't all work out, but a prudent strategy and a prudent balancing of where you put the inventory at the supported branches and the supporting warehouse can mean you can get higher service levels, much more cost effectively, with a little help from your friendly supporting warehouses.

Supported by modelling



We are sure you get the idea, but you are probably already thinking of the complications, such as what service level should I aim for at the supported warehouse? Well, that's easy and will be driven by customer delivery expectations. When it comes to questions like what service level do I need at the supporting warehouse, that is fairly easy too - you model it.

Using modelling you can easily answer what level of stock ought to be available in the supporting warehouse and then ultimately what level of stock might have to be sourced from the main DC. This requires balancing your inventory carrying cost against your emergency stock transfer costs - a couple of model iterations and out will pop the right answer and the benefits can be large indeed. If you look back to our July 2016 AAA Magazine article, entitled Swings and Roundabouts, you will remember that carrying stock at a place



that is "higher" up the chain takes advantage of the Sum of Variances rule (in lay terms, pooled inventory risk) and the same applies here. If you have as few as four to five branches being supported by another warehouse, then it is quite likely that you can reduce your total stock by a third to a half. You can take the below scenario as an example:

- A very slow mover that sells perhaps one unit every few months.
- If you want to achieve a 90 percent service level then a min/max of one might be perfectly OK, but if you want a 95 percent service level then you might need two units of stock at every branch.
- If however you use a supporting warehouse strategy then you can just carry one unit of stock at each branch and perhaps two to four at the supporting warehouse: a net reduction in stock of around a third.

So is it worth doing? How many thousand SKUs could benefit from that sort of support strategy? The inventory savings are likely to be high.

How much will the emergency stock transfers from the supporting warehouse to the supported warehouses cost? Model it - easy!

Support teamwork

Remember in 1967 when Ringo sang about getting a little help from his friends, he also sang: "What would you think if I sang out of tune? Would you stand up and walk out on me?"

Well things do fall apart if people do not play their part. If the supporting warehouse/branch does not release stock to the supported branch then confidence in the system and your supply chain strategy will fail. If your stock accuracy is poor and when people call for stock, they find it is not there, the notes you will hear will definitely be off key. And if the supporting warehouse does not move quickly to confirm that the stock has been despatched promptly, then people will revert to past hoarding behaviours, which could cost you a lot.

So, might it be worth looking at your current strategy and perhaps considering a support strategy? Do you have some customers and some products where it might work? You might just find that you can achieve higher service levels with less stock.

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