LUCKY INVENTORY

Getting better odds playing the aftermarket game

How often do you hear, "We have too much of the wrong product and too little of the right product?"

It is often said with an air of resignation, as if someone else was to blame for the situation. It is, of course, a game of chance as many things are beyond our control. However, all the decisions that led to the excess and any service level issues are our own, so how can we make better decisions? How can we position our businesses to have better luck with our inventory?

The first thing we have to recognise is that we will never get it perfectly right.

Our objective should be to maximise the percentage of items that track between their optimum minimum and maximum, and have the right safety stock and the right replenishment frequency. Measuring the number of items that appear to be 'just right' can be a good metric for the health of your inventory management system and processes, particularly if it can be forward looking and anticipate when your product portfolio(s) are projected to deteriorate in quality.

However, no matter how hard you try, you will still end up with too little of some items and they will impact on your revenue, gross margin, market share, positioning and brand reputation. In fact if you don't have at least a few items where you have too little, you are probably way over invested in inventory.

At the other extreme, you will likely always have some excess that impacts on your overall return on assets and burdens you with carrying costs and write-offs. There will always be the customer that did not take their 'committed' order or the new product that did not live up to expectations – but hopefully, not too often.

Again, measuring the percentage of items where you have excess, ideally broken down by the age of that excess, can again be a good measurement. Describing your excess in value terms can also help you focus on the items that really make the biggest impact on profit and ROA.

The trick is to get the balance right and that takes good software, processes and people, and the right strategy.

Each card plays differently

Just as aces are very different to twos, threes and tens when playing cards, not every item plays the same. Unfortunately many of the simpler techniques common in many ERP systems tend to treat items as if 'one size fits all'. They also suffer from applying the 'wrong' statistics to many items.

For example, a common calculation for safety stock is $k\sigma\sqrt{t}$ (where k is a constant related to the desired service level, σ is the standard deviation and t is the lead time).

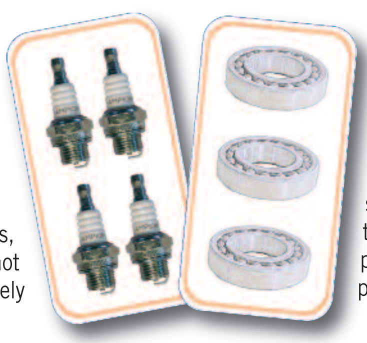
This sort of formula works well enough for higher volume items where you can make simplifying assumptions, like normally distributed order quantities.

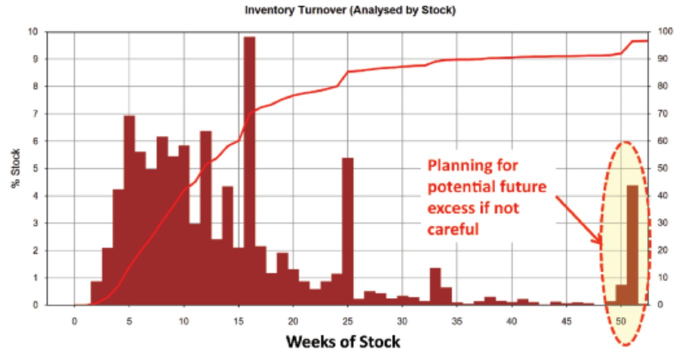
The problem is the formula tends to break down as an approach with an item that might sell once every three months or so. With low volume items you might stock one, two or perhaps even zero, based on a range of factors, including demand, variability, unit cost and importance of the item in your product range.

If you stock zero, one or two this might translate to say zero per cent, 95 per cent or 100 per cent availability respectively for an item. This means if you are after 98 per cent availability, then you need to stock two, but then the same can be said of 96 per cent, 97 per cent, 99 per cent and 100 per cent availability - i.e. you might shift your objective but there is absolutely no change for this one item – in every case you must stock two.

This phenomenon is very typical of aftermarket inventory levels. For each incremental change in your service level (or profit or ROA) objective, only so many items change their optimum min-max values. Nevertheless, as you increase your service level objective, more and more items will jump to higher levels, although not all at the same time.

How can you manage this sort of thing? Well, you cannot worry about every 'card' you play. You do want cheap o-rings to be managed so they are replenished less frequently; you do want more expensive items like a gearbox to be managed so that they are kept in the higher level DC rather than at every branch – but all these decisions should ideally be taken by your inventory management software, under your policy guidance. You need to think more about the strategic business model that drives the policies, product ranges or portfolios.





Playing a better hand

Managing inventory as a portfolio requires very different thinking than trying to manage every individual item.

For example, one thing you might review as you look at planning the inventory levels for a portfolio would be the number of weeks of stock and what percentage or value of items might be being projected for over 40-50 weeks.

If you see a high number of items that also represent a high value, then you could well be setting yourself up for excess problems in the near future. Rather than worry about every individual item that could be contributing to this potential future excess, the smarter approach is to adjust your policy settings so that you set better plans.

Stack the deck

When you approach planning from a portfolio perspective, you have the time and the opportunity to think much more strategically.

Ideally you should have software that considers things like common quantities, matched items, different levels of product popularity and risk profiles, different types of objectives - including service levels, profitability and return on assets, trends and seasonality, alternate supplier optimisation, managing different levels of forecast and supply variability, automatically taking up price breaks (or not)... and much more.

Better inventory management also requires disciplined processes and skilled people. When introducing a new product or range, do your policies manage risk and opportunity appropriately? Are you spending enough time to review the quality of your portfolio? Does your staff waste time on the minutiae of individual items or do they have the skill and the attitude to play a strategic game, not just now but in the future too?

If you put all this together, you can most certainly translate your objectives, policies and strategies into a lot more wins and some far better financial results... you can bet on it.

For further information consult www.horizoninventory.com.au or email info@horizoninventory.com.au