# AT LEAST TWO MOVES AHEAD

# Remember when you used to play chess, playing against your brother or sister, or even the first time you beat your Dad?

One of the things you learned early was that to play well you had to think ahead: at least two moves and although it could do your head in, more if you could.

Was your sister going to fall into your artful trap and lose her Queen after she delightedly toppled your pawn? You learned to recognise patterns of play and how to respond. You knew how to account for the economies of battle. Were your sacrifices going to turn into strategic advantages?

Inventory management is in many ways just like a game of chess. To play well you do have to think several moves ahead and you must be aware of your situation. Have you got plenty of stock, or are you constrained and you will have to move each piece of stock ever so carefully? Are some pieces of stock more important than others? Should they be moved differently? Why? How?

## When do you need Safety Stock?

An easy example of having to think at least two moves ahead is to explore the question of 'if you have a seasonal product, when do you need to order extra safety stock?' The trite answer would be, 'well, at the start of the season obviously' – but that could be very wrong.

You actually need to order AND receive safety stock BEFORE you experience increased volatility, otherwise you have no capacity to react. In other words, you have to think two moves ahead, considering not just what you must order in the replenishment when the season starts, but you must also think of the replenishment before that.

As an example, think of a seasonal product which is sold most strongly in winter. This example assumes a sales rate of one a month normally but for May through to July, the sales rate trebles and so does the volatility. In Summer, you have a minimum of one and a maximum of two, but in the three month winter season you have to increase this.

Let's also assume a two month lead time and monthly ordering. In January you are ordering for March; there is already one in safety stock so you just need one unit of cycle stock. In February however you need to think ahead as you must have an extra two in safety stock before the expected



increase in demand in May. So you order three: one for the expected sales in April and an extra two to build your safety stock ready for May. This is because you cannot wait to receive the extra stock in May because by the time it arrives, if extra demand hits a few weeks early you will be too late. So, in March and April you order three on each occasion, to maintain the higher seasonal level of safety stock and to replace the seasonal cycle stock.

However you also have to look at this in reverse on the tail end of the season as you run down your safety stock and not get stuck with excess that could take six plus months to quit. In this case, in May right at the start of the season, you only order one. Why? Well you want three for the extra demand for July at the end of the season but you also wish to run down safety stock from three to one, so the net amount required to order is now only one.

Now this is a simple example to illustrate the need to think ahead, however what happens if the product has a very high gross margin? Should you in fact hold on to more safety stock in July and run the risk of carrying some excess for a period thereafter? What happens to all this if you wish to raise your service level substantially? Should you be more bullish early in the season, and more conservative later?

Now imagine trying to consider these conundrums for 10-20,000 products in your product range. Daunting? Clearly hard to do. Just as computers evolved to play better chess games, is it time to let a smarter policy driven inventory planning system help you play better?

#### A lot to consider

In chess you might remember rules like the Bishop can only move diagonally, and the Rook can only move forward, back, left or right. There is a lot to consider when you are planning your strategy. How did Dad react last time?

It is similar with inventory management. Should you order two years of stock from a supplier that insists on a high MOQ even though they only offer you a 10 percent cost advantage? If transport costs are high should you order more even though that will lead to short term excess? If so, which products are OK to take that risk on and achieve a higher reward?

#### Stick to your strategy

You will have setbacks occasionally. It is important to stick to your strategy even though periodically it will not work. You want to succeed much more often than you fail and your moves should be considered and not impulsive or reckless.



One of the things the Horizon Inventory software does is to evaluate any pockets of excess that may exist. For every purchase order or stock move, it evaluates potentially many business cases to assess if it is better to order new stock externally or better to move stock that is gathering dust in a remote branch somewhere.

However, if/when the business case suggests an excess move and the branch manager insists on keeping the stock they 'own,' then the strategy can fall down and you either fail to order the extra stock for warehouses that really can shift it, and you lose sales, or else your overall stock turns suffer. Working out a good strategy and rigorously implementing it consistently over time can help you play a better game and win more often.

### Stay nimble

MOQs and Pack Sizes are the bane of many industries in Australia and the automotive industry is beset by them especially for slow movers.

If your normal mode of operation is to import into each of your DCs because freight is much cheaper that way, you may find as products become more mature, you need to adjust your strategy. Maybe it is better to import into one warehouse and put up with the MOQ there, and then cross dock to other warehouses that require stock but cannot justify the MOQ.

The Horizon Inventory software will help you make that choice automatically. You can order for one warehouse and plan to cross dock to the others when stock is expected to be received and then when the stock arrives, the system can reassess the situation and decide a different split across the warehouses. This means you can adjust your implementation based on what has happened in the time between order placement and the stock's arrival.

Decisions, decisions! Well they don't have to do your head in. You remember that time you beat your Dad – did he actually play dumb and let you win? Maybe? That of course will not happen with real life inventory management. Competition is fierce and those with a better game will win, so the question is, are you ready to become a Grand Master?

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

