COMMON QUANTITIES -
MAKE COMMON SENSE

In the last article we spoke of the great amount of information that lies within your ERP system and how, for many, a lot of that Information Asset remains untapped. This information focuses on how just two or three bits of that information can be translated into a large amount of value.

To begin let's start with a simple example.

If you sell 0.5 units per month how much stock should you hold?

If you look at what most ERP systems do, they would say something like:
- Well clearly we cannot stock 0.5 units, so we will stock 1, or
- We will hold 2 months of stock, so that translates to 1.0, or
- We want to hold 50 days of stock so that is 0.83 units which we will round up to 1.

But what happens if a sales rate of 0.5 does not simply translate to a sale every other month?

What happens if the item is used, consumed / sold in twos? There are plenty of products of course for which this might be true. If you look at the graph, you will also see that the part is only sold on average once every four months. With large ranges of slow moving parts, such a scenario will be very common.

Finally what happens if something is consumed in fours, on average once every eight months? In that case holding one or two just does not make any sense at all. The right number to hold would be four or perhaps none, given that the stock might turn very slowly and maybe you should transfer it in when needed.

The usage quantity is one of the most critical pieces of information

You can see from the examples that the quantity in which an item is used will often be far more important than the predicted rate of consumption. For example, if we now say that the product is sold at a rate of 0.75 units per month, and in quantities of two each time, then you would stock 2 or possibly even four. If it was sold at just 0.25 units per month, but still in twos, then you would still stock two.

You can see that it makes a lot of sense to understand and use the common quantity in which an item is being sold or used, to determine the optimum inventory holding.

Our experience with clients also demonstrates four other very important things:
1. You not only have to understand the common quantity that something is sold in, but it is important to understand the
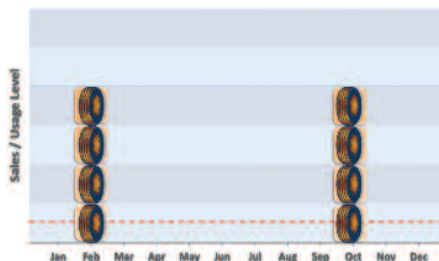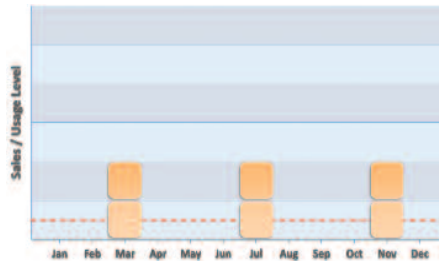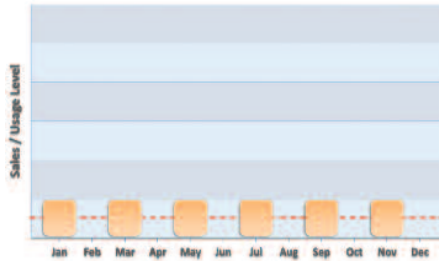
common quantities (plural). For example a trailer wheel bearing kit might be most commonly used in 2s, but occasionally 4s and even 6s, depending on the number of axles on the trailers or caravans on which it is used. All of this information should be factored into the optimum inventory calculation.
2. Not only do you need to understand the common quantities, but you will also find scenarios that do not fit the simple common quantity model. For example, maybe you have one warehouse that supplies to a large manufacturing site or a mine. In that case you also need to understand the 'uncommon quantity', because the optimum inventory strategy may be very different from one warehouse to another.

3. The common quantities tend to be very robust even with very small amounts of order information. The funny thing is that cars have four wheels or two front wheels, or four, six or eight spark plugs, even from the very first usage of an item. So with just a few sales of a part you can rapidly build up a profile of the common quantities, provided of course you have the right tools to do the analysis.
4. Some ERP systems have concepts like a 'per car quantity' or similar. Unfortunately, while this is a start, it only goes part of the way to a truly effective solution that is easy to administer and recognises all the nuances described above. The sort of solution that we believe represents the benchmark in this space is one where the analytical tools take less than a day to set up and thereafter will run on auto-pilot for you, continuing to extract value from your historical sales patterns, with almost no effort required.

Common sense makes business sense too

Does this all make business sense too? Well think about these simple examples:
- If something is sold in 2s and you stock one, what is your service level? Zero! What is your return on assets? It is actually negative? Wasted working capital, higher expenses. What is the effect on your customers? Your market position? Your staff's confidence in your business model?
- If something is sold in 2s and you stock three, what have you achieved? You might achieve a 100% service level but look at your profitability and return on assets – less than optimal.

Think about how, across thousands of items, many of which move slowly how many times you had one too many or one too few? We have just finished the footy season and how many times did you hear the cliché, 'we did all the one percenters better'. This is a case of using the optimum inventory levels more often, and they don't just add up to some 'one percenters' that make a difference, but rather perhaps 10-50% for individual items. One of our clients had a third of its product range where the most common quantity was two or more. That easily translates into a 10-15% advantage in terms of profitability and ROA across a range of thousands of products – something most CEOs and CFOs cannot ignore.