

How to bridge the gap between sales forecasts and reality!

Its one of the very few certainties in life: when we make business forecasts the one thing we can rely on is that the reality will turn out to be different. The question is not if, but by how much? Businesses everywhere struggle with the consequences. From car makers to hospital suppliers, from laundries to hotels, businesses have significant challenges in planning and managing their capacities and supply when the reality of demand inevitably varies from the forecast and expectation.

The results are poor service levels, longer waiting times for services, higher product inventories and lost sales. ...and, not least, a whole load of management stress and hassle.

This situation has been around for such a long time that it is virtually engrained in the mindset of the organisation – managers cannot image a world without these problems. But it does not have to be that way. A wide variety of businesses have made massive improvements in service levels, reduced inventory, increased sales ... and reduced stress by working out how to bridge the gap between the forecast and the reality.

Here's how...

Very often, "less is more": Don't overdo the detail on the forecast and don't clog up your supply chain with early orders for additional "safety". These are two of the most common mistakes and both are fatal. Each ensures poor delivery performance, high inventories and high management stress levels

Less is more in the forecast

More detailed forecasts generate at best lots of spurious detail. No matter how detailed the data looks it is still based on estimate and if the assumptions are vague or uncertain then all the detail will be wrong

At worst, it causes demand to be over-exaggerated and clogs up the supply-chain with unnecessary "orders". Staff and systems err on the side of caution: predict a little more, to be delivered a little sooner.

Also, the additional detail will also give rise to spurious peaks in demand for particular items. (This is to do with the mechanics of putting the detail into the forecast: a %age change is associated with a group of products and the detailed mix within the group is then estimated on a historical basis) So, if one item was over-supplied, it will show up as a higher demand in the forecast, but this is then quite likely to be just the item the customer does not want, as he already has too many in stock!

This situation is then further compounded as producers and suppliers are liable to "cherry-pick" the larger orders, thus ensuring the products we least want get done first!

Then the combination of "erring on the side of caution" and applying "historical detail" happens at each stage of the process and thoroughly distorts the demand picture.

From experience, we estimate that these two factors account for well over 80% of the gap between forecast and reality.

In one extreme case, a forecast demand for 250 components was translated into an order for 60,000! It sounds extreme, but starting with an original estimate of demand (aka the forecast) each department and IT system applied their own rules of safety and historical data to make a supposedly "more accurate", detailed plan.

It is of course, bad enough to be ordering 60000 parts when you only forecast 250, but don't forget the reality will be different again! Very often the market will then confound us by only taking 100 of these but then urgently need 300 of a similar, but different, component. This is when the management stress and extra costs kick-in: everybody gets totally stressed chasing the late orders and costs are incurred for emergency transport, unplanned changes etc, etc

(Quite often, the forecast for the "product group" is reasonably reliable - i.e. the total for the group of similar components above - but there is very significant variation in the mix)

Why building in safety is wrong..

Of course, it's not wrong to try to build in safety. Where we go wrong is that we build in the wrong safety!

It's a bit like a cruise liner with 1000 passengers, we end up with 5000 life-jackets but only 1 lifeboat!

Why? Because we spent our entire budget (and for budget, read capacity of supply) on too many life-jackets and had no budget (capacity) left for lifeboats.

How does this come about?

In general, businesses put in 3 types of safety in their forecasting and planning processes

- they increase quantities in the forecast amount
- they order (forecast) things earlier
- they put in buffer stocks

Intuitively, it all sounds like the right thing to do. Common sense, really. After all, nobody wants to let the customer down by not having products or capacities available.

Except that the devil is in the detail. Although different, each of the 3 well intended safety factors become misguided for the same fundamental reason. They all assume we have infinite capacity of supply.

Implicitly, or otherwise, both staff and IT systems work on an assumption that there is always enough capacity in the system to do everything. Sometimes this is obviously not the case, but often it is much more subtle and almost invariably gets lost in the detail. And while we all know we don't have unlimited capacity, we still do it! We can't help ourselves!

The individual mechanics of these 3 safety errors are, however, slightly different

- overstating the demand. The problem here is that everybody does it. And the more limited the supply, the more they do it!
- ordering early. This is partly the same as above and partly a well-intentioned attempt to help: "give us more visibility" cry suppliers and planners. However, the earlier we place the demand, the greater the variation between forecast and reality. So we end up with the wrong stuff again.
- having buffer stocks may seem ok. Except that businesses often make the mistake of going for minimum stocks. So nobody minds if these levels are exceeded and once again capacity and capital is consumed whilst we stock-up with the wrong stuff

Every time we make too much, too early we waste capacity which means higher operating costs, poor service levels and, as a result, lost sales.

The way forward

Begin by recognising that forecasting is a process that crosses several functions in the organisation and is not merely an "input" owned by the sales department. Secondly, recognise that it has to be customer driven – based on what the customer actually intends to do – and that the customer "pulls" demand and capacity. It is not about the supply chain "pushing" demand.

Of course, no business ever thinks that they are pushing demand through the supply chain, they are all customer driven! Once again, the devil is in the detail as historical data, purchasing lead times, local restrictions, sales targets etc, etc all combine to distort demand. And once again, we don't make what the customer wants!

So what do you do?

Start with the customer and work back right the way through the demand stream (i.e. the customers demand and supply patterns and your supply chain) identifying and eliminating / modifying policies, practices, parameters and procedures that exaggerate the effects of market fluctuation. This is not always easy. Many policies will be firmly held beliefs based on many years "experience".

Whilst every demand stream is different, there are a number of standard, reliable tools that can be employed at various stages of the forecasting process. These may include standard lean tools such as process mapping (to analyse the process), kaizen (to identify waste and excess detail), TOC (theory of constraints, to identify hidden restrictions), Kanban-style pull-systems and so on.

One word of caution here: the skill is not so much in using the tools, it is in knowing when and where to apply them to the process and in how much detail. Beware the never-ending process!

At each stage in the process, the assumptions of the current practises should be challenged in order to align the forecasting and planning processes and procedures to match current market conditions (and not those of a few years ago!)

What this involves:

- Ensuring you have the best procedures for understanding and capturing customer demand
- Ensuring your planning policies and IT systems do not distort this demand
- aligning production restrictions to pure demand
- ensuring purchasing rules and restrictions are aligned
- understanding legal and environmental constraints that may distort demand
- identify hidden policy constraints

Need some help? hba have over 15 years experience in helping companies in a wide range of sectors bridge the gap between forecast and reality. See www.hbagroup.com for more details on how you can reduce your costs and increase your sales with more effective forecasting.