Monitoring Models & Operations

Last time, I said that this article would be sharing tips about building logistics models, but so much has changed since then I thought it more useful to talk about when you know your model isn't useful anymore! What made me think of changing the focus was a recent response from an associate. I hoped we'd be able to do coffee again soon. He replied: "Define soon..... that'll challenge your forecasting skills!"

I'm not pretending that what I'm about to say would have helped you cope with Coronavirus, but it was a good reminder to focus on monitoring when your operation moves out of the box marked 'normal'.

Monitoring

You can't manage what you can't monitor - whether it's a decision that you're planning to take as a part of a new initiative, or in managing your day-to-day operation.

I've written before about sensitivity analysis, but not about breakpoints. Breakpoints are beyond what-if – they're the point at which you need to take a different direction. For example, when exchange rates or growth reach a certain level. You need to build in parameters that define your normal operation, and acceptable extremes into monitoring, so that you know when they're starting to move out of the envelope.

The graphic I'm using for this piece is tracking this year's expected pick volume. Is the black line tracking in the white area, keeping between the minimum and maximum pick levels experienced in each week over the past three years? If not, why not?
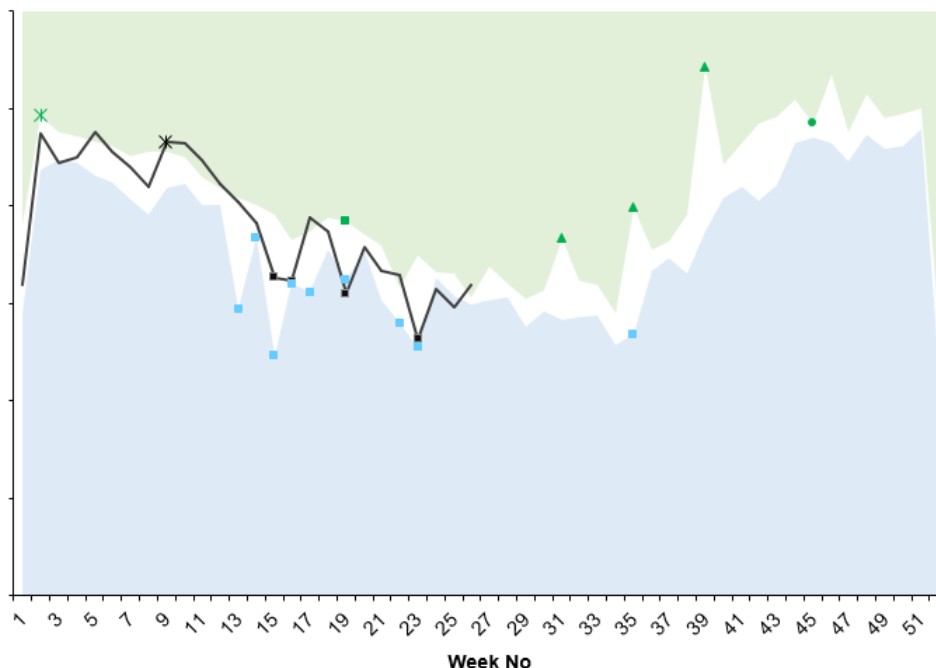
And it emphasises the need to keep what I call a history diary. The number of times I start looking at clients' past data and ask questions about peaks or dips, with people starting to remember (vaguely)

what happened at a particular point: "When did England play, Bob? Was that when orders were up? …could have been the World Cup". Some things are easy to go back and check afterwards, others more difficult.

Your incident log may provide some of that – although the in-joke is that you can always tell when things got really difficult, because no-one had time to fill in anything!

History diary

But keeping a diary of what's happened that's influenced your operation is important if you want to use past data to help you look into the future. This graphic was for a client who was under the impression that pick volumes were really unpredictable, but once you'd identified the causes of past peaks and troughs, much of the year operated within manageable parameters:

- There are things you can plan for, like Easter and the various bank holidays - on my graphic, past troughs and current levels affected by these are indicated by small squares
- Things you just have to cope with, like weather - cold snaps are shown with a snowflake, and an unusually warm November week, shown with a little round sun symbol, driving the small peak in the following colder week
- And factors you can try to influence, like marketing – here the impact of major promos are shown with a green triangle, also depressing subsequent pick volumes with a lag

You'll have your own factors that have affected volumes in your operation in the past and you'll also be interested in factors that affect the costs of the operation. I work in a wide variety of sectors and it's always interesting what's discussed over coffee – the things that people monitor without even being told to: the wheat harvest, the price of gold… It's much easier if you record some of that key data (even if it's verbal descriptions) at the time.

Communication

So what should you do when things move outside of the box marked 'normal'? Again, I'm not pretending that any of this would have helped when the PM announced at 8.30pm on Monday that your business wasn't going to reopen on Tuesday.

The most important thing is to communicate, and if you're monitoring you can do that quickly and effectively. When your indicator is moving towards the margins and then beyond the expected, don't ever sit on it – it's alerting you to when a different approach is required. And that's when logistics people get the chance to show what they're good at: having a plan, and then being pragmatic when the plan gets broken.

Next issue

In the next article I'll revert to what I'd planned for this one and I'll be sharing some tips using both internal company data and from external sources in building supply chain and logistics models.

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