

MAXIMISING YOUR SERVICE LEVELS

How hard are you pushing your service levels? How hard could you push them?

Let's think for a moment about a system with which most would be familiar – the internal combustion engine.

The beating heart of these engines is the combustion cycle with each cylinder and piston. One of the most important design parameters is the compression ratio, and generally the higher the better.

Higher compression ratios deliver more power, greater fuel efficiency and reduced emissions, however they can also generate more heat and noise. There are a lot of factors to get right: higher octane fuel will enable higher compression ratios; a turbocharger can input higher air volumes for every stroke; but then you need better gaskets, better cooling and smarter engine management.

And to get the balance right, you need to have the right gear ratios to translate the engine power to where it is needed. Further, with the greater the degree of sophistication and integration, there will likely be higher initial costs and costs to service too.

Now, let's think about a typical Inventory Management Engine. We want 100 percent service levels and we want these to be achieved with as little investment as possible. Unlike an engine with air and fuel filters, we expect the inventory engine to cope with and deliver results that include peaks and long gaps, handle supply interruptions and to do so with often overly simplistic management systems.

Can we do better? Yes, certainly we can, but only if we look at the whole system and are prepared to challenge the way each component contributes to the final result. If we adopt a systems approach, then we can certainly maximise our service levels, and deliver more for less.

Creating greater range

We have to start with a good idea of what we are trying to do. That means we must be able to deliver stock in volume but also with intermittent demand – perhaps only once a twice a year from a branch or warehouse. We need an engine that can deliver the sort of performance we expect when driving on the highway, but also optimally handle the equivalent of crawling bumper to bumper in city traffic.

From the outset, we have to recognise that for most aftermarket parts it is most like a city car park than a freeway – things move very very slowly and demand is extremely intermittent.

The primary way to deliver good service levels for the many slow movers that your customers might ask for often has to be to expand the range. However you cannot just do that willy nilly. There are constraints, not the least of which is how much you are able to invest. We all know that increasing

your service level from 95 percent to 98 percent to 99 percent can drive up inventory levels dramatically.

Increasing compression ratios much above 10 to 12 for petrol cars is hard to do. The fuel can too easily pre-ignite. You have to look elsewhere to solve the problem, and the same is true with inventory.

The solution is often with the fast movers. If we can reduce the depth we hold for the fast movers then we can free up working capital to invest in expanding the range of slow movers being held in stock. One of Horizon Inventory's clients did precisely that and achieved a one third reduction in emergency stock transfers: greater range, more happy customers, greater sales and higher gross margins.

With the fast movers we can look at issues like seasonality – do we need to hold the same all year round? Or can we adjust levels to suit the conditions? With the slow movers can we save by recognising that the most we have ever been asked for during any replenishment window is one, so why hold two? If we know that for fast and slow movers alike that they are always consumed in twos, how often do we carry one or three? It seems trivial, you might suggest, but remember that for every one unit of stock we avoid wasting you can possibly expand the range by one extra product and there could easily be thousands of items where this could apply.

Coping with Difficult Inputs

When you consider the inputs with which we must cope in aftermarket parts distribution, it is unfortunately much harder than the regulated inputs with which vehicle engines must cope. We don't just have a few grades of fuel to which we must adjust. We typically have tens of thousands of different parts, often from hundreds of suppliers, many of whom have long and unreliable lead times and insist on Minimum Order Quantities and Pack Sizes, all of which can make it very difficult to run as efficiently as possible. On top of that, the problems are often most difficult with the slowest movers, so expanding range and delivering better service levels can be very hard.

However, with Dynamic Supply Chain Reconfiguration, Automatic Alternate Supplier Selection and Cross Dock Optimisation we can run much leaner than we otherwise might; and every dollar we save can be invested in a better range of products.

Smarter Systems Management

Vehicle Systems Management has advanced a long way since the days of timing belts and distributor spark advance.



Now, not only are individual cylinders being managed by electronics but the total vehicle is being managed as a system. Every little advantage is being seized, for example, regenerative braking is adding to range especially with stop start driving.

In the same way, you can manage your whole inventory management system to deliver better results.

For example, you might have a set of supply chain linkages to deliver from a primary DC to all downstream warehouses, but can some warehouses be designated as support branches or warehouses to carry just a little more stock to back up neighbouring warehouses in 'emergency' situations? You might not be able to achieve 100 percent service levels, but you might be able to approach something very close if your whole system can work together to deliver service at each branch or warehouse.

A lot of the smarts that are in a modern car are of course about safety. In a similar way, inventory management systems need to handle risks appropriately. After all, you don't always know what the 'other guy' is likely to do.

It is important that everything be done to recognise and move excess to the best place of potential use as quickly as possible; you simply cannot wait for a product to not move for 12-24 months to recognise it is obsolete. You have to be proactive and systems need to help you tune your inventory settings and help them stay at their optimum.

When things go off track, the system needs to respond as much as possible, automatically. After all, every few dollars saved is potentially one more product you can add to the range.

So are you trying to drive your Inventory Management with a 20th century engine, or is it time to upgrade and achieve more efficiency, better service levels and the increased profitability and return on investment that can so easily flow?

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