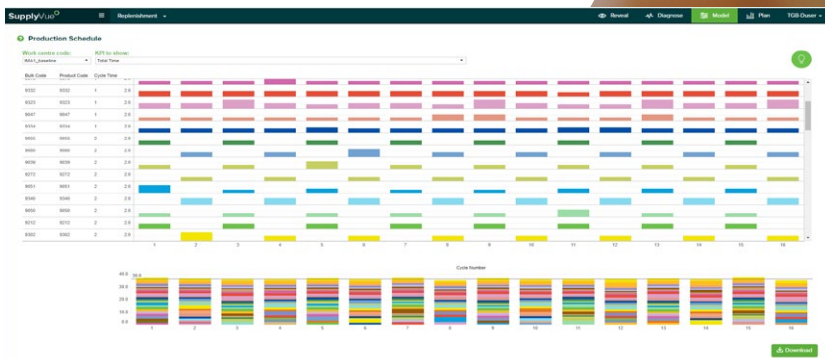


# Supply chain analytics helps Tetley thrive despite pandemic

Supply chain collaboration and optimisation has the potential to solve many of today's most pressing manufacturing challenges.

Data is the key to unlocking many of these benefits. WMG's Supply Chain Research Group (SCRG), led by Professor Jan Godsell, worked with SupplyVue Analytics to develop their supply chain analytics software, SupplyVue. The tool assesses a business's end-to-end supply chain, including production scheduling, planning and inventory management, and uses this to suggest ways to optimise the supply chain.

We spoke to **John Burdett, Global Operations Director for Tata Consumer Products Ltd. (TCPL)**. We learned how they mobilised the insights of SupplyVue for their tea supply chain into the Canadian market, and worked successfully through one of the biggest global crises in recent memory, the COVID-19 pandemic.



## CHALLENGE

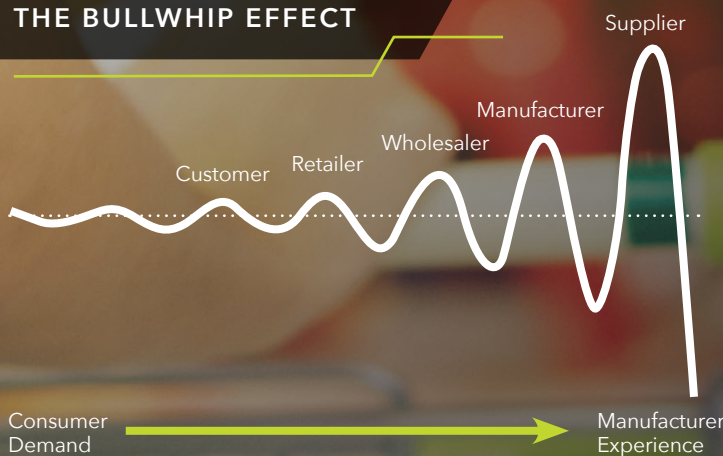
TCPL's tea supply chain for the Canadian market comprised manufacturing in the UK, with stock held in warehouses in the UK and in Canada before being despatched to the final customer.

Although the market was performing well, they were being impacted by the well-known phenomenon known as the 'bullwhip effect' with increasing levels of volatility along the supply chain. The bullwhip effect occurs when orders received from a customer are rounded up to suit production constraints, resulting in a mismatch in stock levels compared with what is actually required.

John recalls: "There is a natural level of market sales volatility at the customer end of the supply chain. This level of volatility doubled as the demand signal worked its way through the supply chain to the factory"

Recognising the opportunity to improve the flow of production, John used the SupplyVue tool to understand how they could optimise their supply chain model.

## THE BULLWHIP EFFECT



John and the team at Tata Consumer Products, used the SupplyVue tool to carry out an end-to-end analysis of their supply chain.

In doing so, they identified that by shipping products directly to Canada, they could reduce stock levels significantly whilst maintaining excellent customer service.

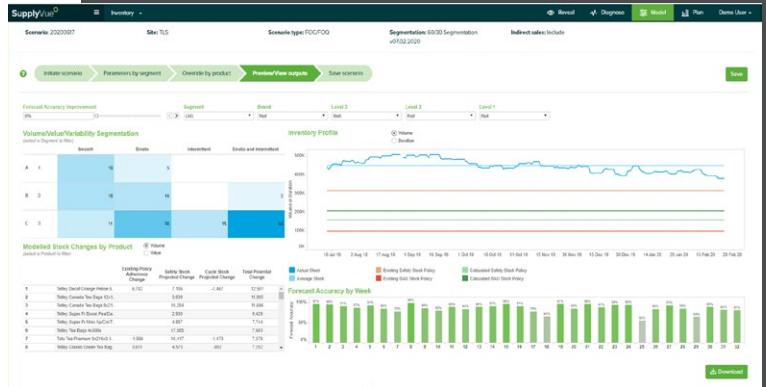
Changes to production planning and scheduling processes helped TCPL to synchronise the tea production in the UK with the demand patterns in Canada and create stability at the factory level. The stability and predictability in the supply chain is brought through pre-scheduling the supply chain using the production wheel methodology. It synchronises demand with the drumbeat of the factory, it defines what 'good' is and what should be happening each week. This brings transparency and trust across the organisation as the supply chain begins to execute against the plan.

The analytics also helped to improve demand forecasting by providing insight into demand variability and where the improvement opportunities lay.

John explains: "The SupplyVue analysis gave us a holistic view of the end-to-end supply chain and enabled optimisation at the network level rather than optimising at each of the individual nodes. We ran scenarios using the multiple configurations to identify the new optimised set up. This enabled us to gain confidence in the process and to get a consensus with our customers in Canada."

The pilot phase of this change was started in January 2020. Unwittingly, TCPL were beginning a major restructure of their supply chain, just as the COVID-19 pandemic sent the world into chaos and many countries, including the UK and Canada, into lockdown.

John asked "Who would be crazy enough to go-live with a new planning system at the same time as COVID-19 hit us? Well, we were because we had confidence in what we were seeing, collaboration across the supply chain and the ability to see end to end and understand the impact of our decisions."



IMPACT

TCPL began to see the benefits in a more stable production flow right away, even in the challenging COVID-19 circumstances they found themselves in.

John comments: "We've eliminated the bullwhip effect - we saw no increased stock levels as we recovered from the panic buying phase of pandemic. We're now collaborating across the supply chain enabled by insight through analytics. We are using the end-to-end visibility to get a smooth, even flow of products through to our customers."

TCPL are now looking at rolling out the same optimisation model into other supply chains and unlocking more value.

Prof Godsell comments: "As humans, we are subject to myopic loss aversion. This is a bias that means we tend to fear loss more than gain. In supply chains, it means that the fear of losing a sale, leads to a change in the production schedule that can lead to overproduction. COVID-19 exacerbated this effect."

SupplyVue provided full end-to-end supply chain visibility, and the confidence to trust the current plan.

This enabled customer orders to be fulfilled at lowest possible supply chain cost and the unnecessary costs of overproduction and excess inventory to be avoided."

For more information about our Supply Chain research, visit: [www.warwick.ac.uk/fac/sci/wmg/research/transformation/supply\\_chain](http://www.warwick.ac.uk/fac/sci/wmg/research/transformation/supply_chain)

