Replenishing seasonal products more efficiently

Starting point

Vianor is a global tyre and car service chain with 800 outlets in 20 countries and almost 4,500 staff in directly-owned and partner-run operations. It's the largest chain of tyre depots in the Nordic region. It's expanding to offer a 'tyre hotel' service where customers' out-of-season tyres are stored until needed.

Vianor's old replenishment model was based on making large advance orders ahead of each season, while ordering during the season was decentralised, with their system using both ERP and Excel. "Seasonal advances aimed to cover almost the entire season's demand, so before the season started all our locations would be crammed with tyres," says Vianor's Logistics Manager Ville Nikkola. "That operational model became more of a problem each year, since the demand for tyre hotel services has constantly increased, as has the need for space in the locations to enable it."

Vianor in brief:

- Subsidiary company of Nokian Tyres Plc
- The leading tyre chain in the Nordic countries
- 170 own locations and 546 franchising locations in 20 countries
- Tyre sales, maintenance services and spare parts

Challenges at the starting point

- Difficulty of forecasting sales due to strong seasonality and dependence on weather
- Influence of local weather conditions and competition on sales varied in each location
- Extremely high stock levels prior to season
- Distribution of scarcity in situations where demand exceeds market supply

Goals

- Reduction of location stocks during season
- Freeing up of space at the locations
- More centralised control over streams of goods and reduction of the workload required when placing orders

Results

- Lower stock value during season (by 30% on average)
- Improved availability in all commodity groups
- Higher order and delivery volumes resulting in lower freight costs
- Capability of locations to free up space for the tyre hotel business
- Optimised distribution of stock to meet sales demand and avoid scarcity
- Comparable sales growth 7%

Because the shops were fully responsible for all their orders during the season it caused further problems particularly when demand exceeded supply. "When the shops made their orders independently, it was often the case that some of them had too many tyres and others too few. On top of that delivery batches were too small," says Mr. Nikkola.

Using a pilot project to limit risk

Vianor realised it needed to improve its replenishment model but there were a number of unanswered questions that made them cautious about how to proceed.

Could both advance stock orders and replenishment during the season be managed with the same system? Would shops embrace the change? Is it even possible to use automatic forecasting for highly volatile and strongly seasonal products?

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Ville Nikkola
Logistics Manager, Vianor

"The piloting RELEX offered suited us perfectly. It is essentially a trial set up across part of a customer's operations with real world, live data so we could measure the impact. It's a very effective and inexpensive way of lowering the risks inherent in adopting a software system," says Ville Nikkola. "During the pilot, we tested the centralised operations model in 11 locations, and any doubts about whether the system could be configured to our own processes vanished. As sales went up and stock availability improved in all the pilot locations, the feedback from the shops was positive."

Not unexpectedly the pilot threw up problems. "We had many procedures and limitations – such as selling tyres in sets – that we failed to see as relevant beforehand," says Mr Nikkola. "These problems were resolved quickly 'on the fly', and that built trust, both in the operations model and in our working relationship with RELEX."

Going into the new season with precise forecasts

Seasonality is strong in the tyre market especially in winter when 30% of cold weather tyre sales are made within 10 days of the first snowfall. "Previously we'd thought that the quantitative forecasting of demand would be too difficult for our business operations. However, the forecasts provided by the RELEX system hit their mark so well that we have been able to reduce the level of advance stock orders dramatically. This way, the most problematic issue for us – having to have maximum stock at locations prior to the beginning of the season – has been addressed with stock levels falling, on average, by 30%. Therefore, we are able to accommodate more tyre hotel customers without any major tyre transfer operations; precisely the aim we'd set out in our core business goals," Mr Nikkola says.

Controlling scarcity situations centrally

The winter of 2010/2011 was very cold and snowy throughout the Vianor market area, so tyre sales exceeded forecasts. With the help of the solution provided by RELEX Vianor has improved its matching of available stock with the areas of highest demand. Ville Nikkola again: "We have been able to balance our capacity so that stock levels are comparable across different locations and throughout the season, even though there are big variations in sales volumes and profiles between different locations. By centralising control deliveries are more efficient. There are fewer expensive single-item or category quick deliveries and costly transfers between locations have fallen."

Full speed ahead after the pilot

At the end of 2010 Vianor decided to use RELEX systems for replenishment across the Nordic region. In December 2010 the system was rolled out for their 55 locations in Finland. Norway and Sweden are due to follow.

"Both the system and the operations model were fine-tuned during the pilot, so expanding functionality is straightforward and fast," says Mr. Nikkola. "We expect the changes its made to our replenishment will bring extensive and swift benefits across borders. Staff in our shops can concentrate on improving customer service, and we are able to offer our tyre hotel service to a larger proportion of our customers. Not only that but this operations model will make efficient production planning easier in the future, which of course is very important for the entire Nokian Tyres Group."