

SAS SPO Case Study – CV Vooruit

CV Vooruit: Enhancing service, stock levels improves profits

Keeping inventories at an optimal level is an extremely difficult exercise. Even more so when there are 10,000 pharmaceutical products involved, with each of them following a different demand pattern. Since implementing SAS® for forecasting and inventory replenishment planning, CV Vooruit, a major Belgian pharmaceutical distributor and retailer, is making much more precise forecasts. As a result, its costs for maintaining inventories have dropped significantly.

10,000 products, 200 suppliers

CV Vooruit, a renowned pharmaceutical company headquartered in the Ghent area in western Belgium, owns 36 drugstores. The company's central warehouse, which stores about 10,000 products from more than 200 suppliers, ships inventory to the stores each day.

“Optimizing the quantities and types of products kept in stock is a continuous challenge,” says André Devos, CEO. “We were faced with the typical difficulties related to inventory management: We had excess stocks of certain products, while our levels for others were running too low. In addition, our manual stock forecasting methods were taking up too much time. And our average storage costs per item were too high.”

CV Vooruit decided to look for a demand-forecasting tool that would allow it to more accurately determine required stock quantities and replenishment frequencies. So it turned to SAS, the leader in business analytics.

Proof of concept highlights savings potential

The application had to be able to calculate an optimal stock level for each pharmaceutical product, and to indicate the service quality associated with a given stock level. This service level is a key parameter: It indicates, for instance, what the chances are for a retail customer to be helped directly, given a specified inventory level. The higher the immediate availability of pharmaceutical items, the lower the risk that the retail customer will go to another drugstore. A key target is therefore to provide continuous high service levels, while reducing warehousing costs. The first step was to thoroughly classify all pharmaceutical products according to the frequency with which they are requested by customers. SAS then developed a proof of concept of the forecasting application.

Using a product demo with real data, SAS showed that the new solution would be able to increase service levels while reducing stock levels significantly.

From raw data to stock forecasting

“Given these convincing figures, we decided to implement SAS immediately,” Devos says. Today, the SAS application handles the entire forecasting process, from data collection to reporting. It puts together information from multiple sources, including sales information, stock levels, and product prices. The system forecasts demand on a weekly interval based on the historical sales figures of the products. It also suggests optimal stock levels, taking into account frequencies for product orders and corresponding service quality for every stock level.

Inventory managers can analyze these suggestions in detail, and then decide whether to modify them. They can also run simulations, for instance, to check the effect of less inventory on service levels. In this way, the optimal inventory levels are established for the entire network, taking into account central stocks as well as local stocks at drugstores. This was not possible with the previous forecasting system. The new solution also features a monitoring and alert system in case inventories fall below a specified level.

Statistical expertise generates high data precision

SAS went to great lengths in defining the ideal statistical parameters for the forecasting tool. Advanced statistical methods are used for both fast- and slow-moving items. The result is an application that generates great precision in forecasted data. It also provides the flexibility to adapt statistical parameters according to market realities and changes in demand patterns.

Reports show performance and benchmarks

The system also features extensive reporting capabilities. Purchasing managers at the warehouse have easy access to standard performance reports. These contain information on such elements as the service levels provided for each product, or the differences in local stock levels between drugstores.

Top managers can also access reports to follow up on the correlation between service-level evolution and inventory cost evolution. Or check that the monetary value of the total inventory remains within pre-defined limits. The solution also compares the company's performance figures to industry benchmarks and legal requirements regarding product availability.

“The reporting feature is proving to be of great assistance in making more appropriate decisions, and in verifying where we stand in comparison with the rest of the sector,” observes Devos.

Investment pays off within the first year

Completed in two phases over six months, the project yielded immediate quantifiable returns. CV Vooruit improved its service-level performance by 3 percent – reaching 97 percent of its target while increasing its inventory turns by five times. As a result of those improvements, earnings increased as stock-outs declined. Armed with accurate demand forecasts and a clear picture of its inventory provided by SAS, CV Vooruit now has more working capital, which otherwise would have been tied to inventory; and a better picture of when, where and how often each product needs restocking.

Throughout the implementation, SAS held workshops with users to assess their needs and to define the application's functions accordingly. "Using the SAS inventory replenishment tool has resulted in multiple benefits for our company," Devos says. "Overall product availability has improved while inventory costs have gone down. Stock rotation has increased, which means the working capital has diminished.

Staff efficiency has also improved, and our forecasting has gained in precision. Both our drugstores and our retail customers now enjoy improved service quality," concludes a happy CEO. "Our return on investment was actually reached within one year."

About the company

This renowned Belgian company is active in the distribution and sales of pharmaceutical products. It operates a central warehouse, as well as 36 drugstores in the Ghent area. It sells about 10,000 pharmaceutical items, has an annual turnover of 30 million euros and employs 150 people.

<http://www.sas.com/success/cvvooruit.html>