



Case Study

Beer consumption changes with the weather day to day. A good forecast requires true intelligence



The company

Headquartered in Munich, Paulaner is one of the largest breweries in Germany. Also, it's one of the best known with 3 brands, 20 types of beer, and up to 30 packaging types. 70% of Paulaner's distribution is domestic, and 30% is international.

The challenge

Paulaner is one of the top brewers in Germany and is located in the town of Munich. The physical location of the plant in the center of town poses unique capacity challenges for Paulaner, as the city surrounds it. These storage limitations forced Paulaner to service its customers with as little as one day of inventory.

What Paulaner needed in order to raise customer service under these circumstances was more accurate forecasts. In fact, the very low safety inventory restrictions mandated the forecasts to be exceptionally accurate, down to the product package level, by measure of one day.

Paulaner had never used forecasting systems before so they turned to Dr. Michael Bell to spin up a focused team to find the right Demand Planning solution. There were three key strategies that Paulaner wanted to employ in order to increase the accuracy of forecasts.

They were:

- Provide the best statistical forecast by applying sophisticated time series extrapolative methods including the embedment of additional information such as weather forecasts and other factors that were thought to have an effect on beer consumption
- Provide an easy to use graphical-user-interface that can be used by sales people who spent a lot of time with customers and little time in front of computers
- Establish a closed-loop process to measure the accuracy of the forecast and continually improve the methods used in the statistical forecasts and sales forecasts

The solution

Paulaner went through a software selection process that started out with 26 software vendors and in the end chose Adexa as the solution provider. A structured S&OP planning process using the Adexa Collaborative Demand Planning system was implemented in order to create a consensus demand plan that the company would use to guide production.



A comprehensive process was put in place to determine what key factors would be used in the statistical forecast and to enable the sales people to input their short term forecasts.

The key factors that were included in the statistical forecast were established by interviewing the people in the company with the most experience. As these key factors were identified, mathematical models were established to measure their effect on the forecast based on past experiences. Factors such as weather, temperature, seasons, and holidays were included and tested.

Finally, a set of criteria was chosen to drive the forecast. The sales people were trained to put their forecast into the system directly, or through the Excel interface that is part of Adexa's Collaborative Demand Planner.

Value delivered

The solution went into production within 4 months after the implementation start-date. The system has been measuring forecast accuracy and delivery performance trends since the go-live

The key metrics improved are as follows:

- Short-term forecast accuracy (6 weeks lag) has improved to 90%
- Long-term forecast accuracy (18 months lag) has improved to 85%
- Inventory is limited by the fact that there is no room to put any extra products and Paulaner is doing much better servicing their customers in spite of this restriction

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