CLIENT SUCCESS STORY

A passionate poultry producer from small-town Nebraska makes big waves in BI and analytics

INTRODUCTION

This client beyond being industry innovators in their day to day operations, they're also 10 steps ahead when it comes to how they analyze their business and are visionary in how they use data to identify opportunity for improvement. In fact, the client has more advanced predictive analytics than many investment banks we've worked with. Recognizing this vision early on, Peraison was very excited to be given the opportunity to help them take their BI and analytics to the next level.

CHALLENGES

There are many challenges unique to producing a perishable fresh product. The shelf life is short, high wastage would make the business model unfeasible, and there's no real opportunity for inventory. So, supply and demand need to be in sync, and this requires precision planning and a perfect understanding of your market. Supply is relatively fixed in the short term, but demand can fluctuate wildly depending on time of year, weather and promotional activities. Believe it or not, demand for white breast meat skyrockets for the short period of time that our new year's resolutions are still intact, before settling back down in February. Try planning around that!

Beyond this, there are a raft of challenges unique to poultry production. Football season sees a huge uptick in wings consumption, but last time we checked, a chicken only has two wings, so there's no ability to increase production of this single SKU. In another twist, Thanksgiving and Christmas is a time of year where we all get together and eat whole Turkey, but that sees the demand for whole chickens plummet for November and December. Planning around these erratic peaks and troughs causes plenty of pain, but together we've developed some novel ways of optimising the planning process through a combination of live analytics in Qlik dashboards, and machine learning assisted forecasting with Data Robot.
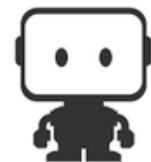
COMPANY HIGHLIGHTS

Technologies
Qlik, Data Robot

Region
United States

Sector
Food Production

USING QLIK TO SHED LIGHT ON THE BUSINESS

The power of Qlik is leveraged for both its ETL capabilities and as a data visualization and reporting platform. Powerful associative models consolidate data from ERP, CRM, live production and planning tools giving managers an asset to empower decision making.
The customer demand forecasting process is a critical step in the chain to running a successful operation. Visualizing the forecast in Qlik, managers can quickly move from a brand level right down to individual SKUs. Different ordering patterns unique to geographies are easy to see, and the demand fluctuations driven by weather, events, promotions and holidays are all evident when trended or exposed through geographic maps.

Qlik provides a great view into the forecasting and sales data, but with such diverse ordering patterns there's real opportunity in perfecting the forecasting process right down to the SKU and customer level. So, in 2018, with Peraison were enlisted the help of Data Robot to apply Automated Machine Learning technology to the demand forecasting process.

BEYOND DEMAND FORECASTING

While customer demand is a pivotal data point, there are other parts of the business that can also benefit from the power of Data Robot. Predicting the growth trajectory and final weight of chickens can inform the planning process of anticipated supply. In a sector where inventory is almost non-existent, having a keen eye on supply avoids surprises and lets the customer support team know exactly how much produce they have available to distribute. Having advance notice of any expected shortfalls lets customer service pro-actively manage expectations.

In another industry first, our costumer have installed a full end-to-end 'air chill' system – the only one of its kind in the US. While the impact this has on product quality is beyond measure, it's a tricky piece of equipment to run and presents a risk should it fail. They are looking to Data Robot for predictive maintenance. By analyzing the events leading up to previous parts failures, we can begin to predict when another failure is looking likely. IOT sensors constantly measure conveyor belt motor amperage, temperature and tension. The most minute change in tension may indicate a stressed or worn ball-bearing, or a slight increase in motor temperature might indicate an increased level of strain. Being able to pro-actively identify issues before they fail during production hours can have a massive impact on continuity of supply.

CONTACT US

INFO@PERAISON.COM

LONDON
+44 (0) 203 998 3253
PERAISON
LEVEL 8, ONE CANADA SQUARE,
CANARY WHARF,
LONDON,
E14 5AA
UNITED KINGDOM

LISBON
+351 96 428 8338
PERAISON
PARQUE SUÉCIA – SUÉCIA
AV. DO FORTE Nº3,
2ºPISO – SALA 3.30
2790-072 CARNAXIDE
PORTUGAL

MELBOURNE
+61 (0) 403 427 353
PERAISON
GROUND FLOOR
470 ST KILDA ROAD
MELBOURNE
VIC 3004
AUSTRALIA