



Insight commercial case studies

Sector: **Agriculture**

Insight

Centre for Data Analytics

Modelling Future Commodity Prices for the Beef Industry



The Kepak Group uses Data Analytics to estimate future commodity prices and volumes to aid in pricing and production planning

Executive Summary

Challenges

The Kepak Group is an Irish company that sells meat product throughout the world. Kepak wants to use its data to predict future prices. This requires:

- Incorporation of structured and unstructured data from a variety of sources
- Mining the data to find the factors that most influence pricing

What Insight Delivered

Insight and Kepak launched a targeted project to investigate or develop:

- data-mining methods
- a sector specific ontology to automate the importation of data feeds from disparate data sources
- algorithms to accurately predict commodity pricing

Measurable Impacts

This project is Kepak's first data analytics research project and has yielded a number of benefits for the company that include:

- Identification of algorithms that can be used to improve predictive power when dealing with commodity prices
- Training of potential candidates for needs of both future warehouses and data modelling
- Access to Insight researchers that will trial new software developments from Kepak's lab



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Background

The Kepak Group is a multinational company that produces meat product for distribution all over the globe. Kepak have traditionally been involved in research with regard to product development and wished to collaborate with Insight to engage in a data analytics research project. Kepak realises that other food companies in the US and abroad have embarked on the quest for more predictive power with regard to their future prices and volumes. Realising that they have vast hordes of in-house data, and with the release of trade and production data by organisations such as the EU, this provides an ideal opportunity to use data analytics to provide useful insights for decision making.

Kepak has been introduced to the benefits of research in the analytics area. They have been intrigued by the findings of other projects and in particular the ability to analyse data in real-time. Kepak embarked, with Insight, on advanced research in the areas of data modelling and data warehouse ontology.

Solution and Outcome

Insight and Kepak together launched a project with the following four objectives: identification of mathematical models to highlight influencing factors in pricing and production planning - a further extension of this research will address ways to incorporate structured internal and external data with unstructured data; developing a sector specific ontology for the automation of the importation of data feeds from disparate data sources; implementation of a real time monitoring solution and development in a sector-specific agricultural warehouse; identifying algorithms that may be used to improve predictive power when dealing with commodity prices.

The outputs from this project will provide Keepak with suitable use cases for their future needs in warehousing and data modelling. Additionally, there is the opportunity to further expand the relationship between Insight Centre for Data Analytics and Kepak into new areas, which will lead to Kepak becoming a pioneer of data analytics in the meat processing industry

Keepak

For further details on Keepak see
www.keepak.com

Insight

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"Working with Insight Center for Data Analytics has introduced the Kepak Group to the world of analytics. We are really excited by the opportunities".
Damien Mulligan, Head of Finance & Information Systems at Kepak Group.

