+ableau | TRIFACTA

CUSTOMER SUCCESS STORY

PepsiCo cuts analysis time by up to 90% with Tableau + Trifacta

Consumers enjoy PepsiCo products one billion times a day in more than 200 countries and territories around the world. PepsiCo's Collaborative Planning, Forecasting, and Replenishment (CPFR) team provides data and analyses that enable effective retail sales management. The team also collaborates with large retailers to supply the right quantities of product for their warehouses and stores.

Supplying too much product results in wasted resources. Supplying too little means that they risk losing profit—and they must reconcile with unhappy, empty-handed retailers. An empty shelf also risks consumers choosing a competitor's product, which has harmful, long-term effects on the brand. To strike the right balance between appropriate product stocking levels and razor-thin margins, PepsiCo continually refines sales forecasts.

PepsiCo adopted Tableau partner, Trifacta to wrangle disparate data, pulling the data into Tableau for forecasting and analysis. With Trifacta, the CPFR team reduced end-to-end run time of PepsiCo's analysis by as much as 70%. And with Tableau, PepsiCo reduced report production time by as much as 90%. Today, PepsiCo has more accurate data—faster, giving them a competitive advantage in the retail space.

"Now we're not taking our time putting the data together; we're spending our time analyzing the data, telling the story, and finding problems."

—MIKE RIEGLING
SUPPLY CHAIN DATA ANALYST, PEPSICO

PEPSICO

Purchase, NY
www.pepsico.com

Reduced end-to-end analysis by as much as 70%

Reduced report production time by as much as 90%

Gained competitive advantage in the retail space

Searching for a single source of truth

PepsiCo's customers provide them with reports that include warehouse inventory, store inventory, and point-of-sale inventory. PepsiCo reconciles this data with their own shipment history, production numbers, and forecast data. Each customer had their own data standards, which didn't correspond with each other (let alone PepsiCo's system). For example, PepsiCo relied on UPC codes to identify each product, while customers created their own internal numbers.

Wrangling this data was a challenge and reports could take months to generate. Analysts knew that their ability to quickly standardize data across all retailers—and speak the same language as their customers—was critical to preparing data faster for their forecasting and planning efforts.

Churning out sales forecasts fast enough for management to steer the course on sales was another challenge. Each new report required the CPFR team's analysts to build a tool in Microsoft Access that combined retailers' sales data and PepsiCo supply data; a process that could take up to six months.

The team primarily relied on Excel for analysis, creating large quantities of messy data. And the team had no efficient way to spot errors, leading to potentially costly outcomes. For example, a missing product from a report could result in inaccurate forecasts and lost revenue.

The CPFR team needed a way to wrangle large quantities of disparate data. At the same time, the team needed a visual analysis tool that could help them make the most of PepsiCo data.

Finding the right solution for better data

To bring coherence to the data, PepsiCo turned to Tableau partner, Trifacta.

For greater efficiency and scale, PepsiCo implemented Hortonworks Hadoop as a landing and staging environment for this variety of data. Now reports run directly on Hadoop, without involving multiple steps with Access and PepsiCo servers. This process allows analysts to directly manipulate data using Trifacta.

Tableau provides PepsiCo with the finishing step: powerful analytics and visualizations, helping the business make sense of volumes of data. PepsiCo analysts share relevant Tableau workbooks with management over Tableau Server.

Powerful results with Trifacta + Tableau

The combined use of Tableau and Trifacta helps the CPFR team drive the business forward, increasing visibility into customer orders. Trifacta's visual profiling capabilities and Tableau's advanced visual analytics allow the team to easily identify gaps and get ahead of larger issues.

Trifacta integrates natively with Tableau Data Extracts (TDE), allowing PepsiCo analysts to seamlessly transition between the two technologies. PepsiCo brings Tableau data extracts into Tableau Desktop, allowing them to maintain performance on big data.

The combination of Trifacta's data wrangling power and Tableau's analytical depth allows PepsiCo to streamline its process. This has dramatically reduced time spent on data preparation and increased the overall quality of the data. Normalized data in Trifacta helps catch errors and flaws in the data. And with Tableau, PepsiCo can easily spot outliers and take action. If issues arise, they can correct mistakes before causing any bigger problems downstream.

"We're able to turn customer data around and present it to the rest of our company, in a way that everyone can understand, faster than our competitors."

Performing data analysis with Tableau using Trifacta's normalized data has reduced the end-to-end run time of PepsiCo's analysis by as much as 70%. The ability to reproduce patterns makes building CPFR tools a more efficient, automated process.

PepsiCo now spends less time preparing data, and more time finding insights. Mike Riegling, Supply Chain Data Analyst at PepsiCo, said, "Now we're not taking our time putting the data together; we're spending our time analyzing the data, telling the story, and finding problems."

Building these reports in Tableau reduces production time by as much as 90%, and visualizations that used to take up to six months to build are now ready within a day.

In Tableau Desktop, PepsiCo analyzes inventory, logistical, and finance data from across the country. Bringing the data into Tableau Desktop allows PepsiCo to make sense of big data and empowers analysts to create supply chain and forecasting reports in record time.

Analysts refine the data to answer questions, spot trends, and plan for future demand—saving the company money. The IT department publishes TDEs to Tableau Server, encouraging collaboration between teams—and enabling self-service analytics at scale.

Gaining insight from customer data faster than ever has enhanced PepsiCo's process to offer its customers best-in-class service. It has also given PepsiCo a huge competitive advantage over other CPG businesses.

PepsiCo can now predict trends, adjust sales, and ultimately sell more of the right product to improve their bottom line. Riegling commented, "We're able to turn customer data around and present it to the rest of our company, in a way that everyone can understand, faster than our competitors."

tableau.com