

# AI Powers Category Forecasts for Pharma Leader Across Seven Countries

Quick, accurate forecasting tool allows non-IT users to optimize investment allocation across countries.



A leading global pharmaceutical and medical device company needed to strategize their investments. This required them to forecast category growth for eight upcoming quarters across seven countries—no small feat in this age of high-pressure decisions and huge amounts of data.

Delivering a statistically validated and consistent methodology across forecasts required us to apply several AI and machine learning techniques. And the result?

## Comparable, Customizable Category Forecasts at Users' Fingertips

Thanks to a user-friendly AI forecasting tool, the client's non-IT personnel could run their own forecasts. With just a few simple clicks, they had the power to:



Adjust effectiveness and weightages per business conditions.



Compare actual growth with forecasted growth, thus identifying any anomalies in the forecasted output.



Find the best allocation of investments by comparing forecasts and key drivers across countries.



## An Ensemble Approach to Forecasting Success

Using Nielsen Retail Audit data for seven countries and a blend of regression-based causality and time series forecasting methods, our ensemble approach allowed the company to understand category movement in multiple areas.

First, we identified key macroeconomic and consumer indicators for each category. We then created a regression model based on these indicators and computed a time series forecast using Holt-Winters methodology. Finally, we added weighted averages to both the regression and time series models; this created a rounded and flexible ensemble model that users could easily fine-tune without recourse to the data science or IT departments.

## Information On Demand with AI

By using the ensemble approach to modeling, we were able to help the client take full advantage of AI's flexibility and computing power. Not only did this give them a more accurate forecast than a single model or method, it allowed them to make comparisons and adjustments as needed.

