CPG

Unlocking futuristic insights using Industrial Level Forecasting for a leading F500 Brewer

Attained 99% forecasting model accuracy.

Industry
Manufacturing

Function
Demand Planning

Data Used
1. Weather trend
2. International HIS market data
3. International monetary fund

Tech Stack
1. R
2. Shiny
3. Excel

Who Is The Client?

The client is one of the prominent F500 brewers based in the US and has a diverse array of customers across the globe. Selling its diverse portfolio strategically, the company has a strong presence and brand momentum in the world's largest markets.

Business Quandary

The statistical effect on client's sales was estimated by the variability in market trends that collapsed in identifying the key drivers across the regions. To bring out the outstanding results in sales and business decisions, global estimation of beverage consumption was needed to boost operational efficiency to fulfil the demand and strategize the capital investments across different markets.

How Did We Solve The Problem?

Affine provided a model to analyze the trending key drivers in each sub-segment of the global brewer market, along with forecasts at the regional level from different year breaks. Our team of Analytical Engineering and AI experts leveraged advanced algorithms like Linear Regression, Lasso Ridge Regression and Support vector Regression to develop a forecasting framework based on Macroeconomic, Micro(strategic) and weather data. This interactive model enabled the client to make confident business decisions based on predicted data.
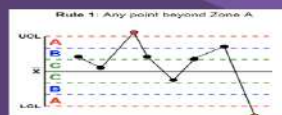

ILLUSTRATIVE

MODEL OUTPUT VALIDATION
- The results from the existing forecasting model were churned out and collected
- The output of the model was validated using recursive estimation and residuals using CUMSUM tests

MODEL STABILITY CHECK MECHANISM
- Shewart's Algorithm were employed to monitor the model's performance in the future against actuals
- Trigger mechanism was implemented to revise the model when needed

ALERT SYSTEM CREATION
- Results from anomaly detector were analyzed to define business triggers
- The triggers were leveraged to create an automated alert system
- The alert system was integrated within the existing modeling framework

The Pay Off

Affine created an interactive web tool that will simulate scenario-based forecasts, efficacious insights, and reports to seize calculated outcomes in the business. With the help of this tool, the client will receive comprehensive reports and the analysis of the brewer sales and provide infallible production data for the upcoming years for futuristic production.

Interested To Learn More?
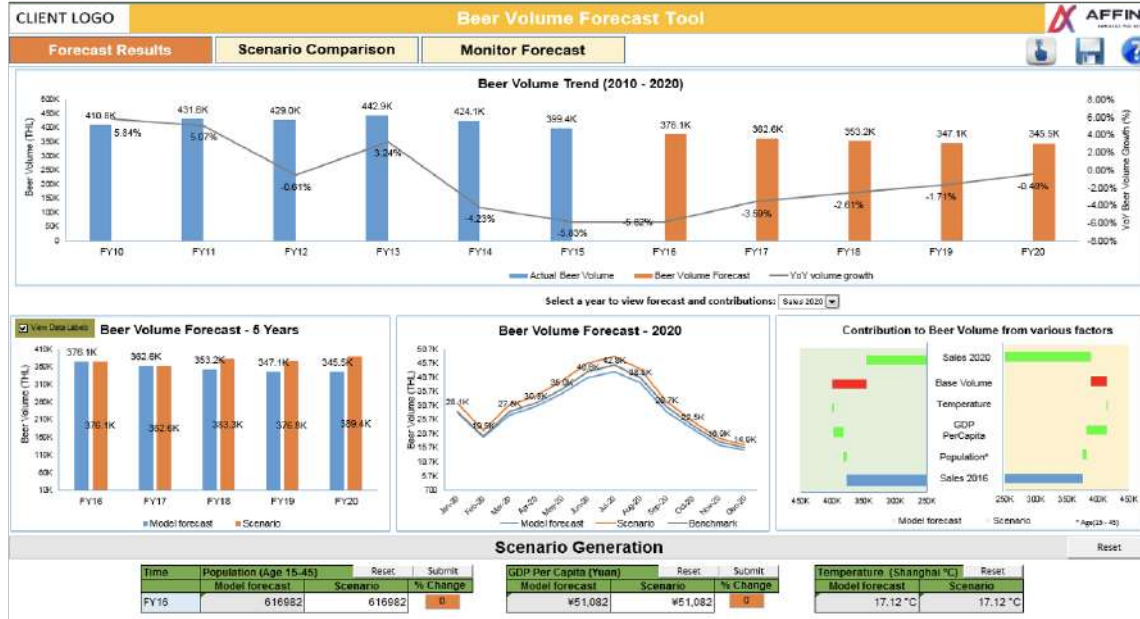
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Business Benefits

99% ↑
Model Accuracy

↑
Strategic Planning Efficiency

↑
Understanding Sales Drivers