

## Case Study

### Overview

**Demand Prediction Solution** revolutionized the FMCG industry for PepsiCo by accurately predicting demand trends, optimizing truck loading and reducing stock out rates.

#### Problem

PepsiCo faces challenges in predicting snack demand and truck loading due to sales rep turnover and fluctuations in customer behavior and financial conditions. This leads to inaccurate product mixes, potential stock-outs, and loading issues.

#### Challenge

To develop machine learning models that can effectively capture fluctuations in demand due to season, price, and customer behavior, and incorporate them to accurately predict the daily demand for each point of sale.

### Approach

PepsiCo **utilized TAZI's AI solution** to predict daily snack demand at various sales points. The approach, considering factors like seasonality and customer behavior, optimized data and machine learning models to **improve prediction accuracy**. This not only **enhanced forecasting** and **truck loading processes** but also **reduced stock-out rates**, boosting PepsiCo's **operational efficiency** and **profitability**. Additionally, the solution established a valuable corporate memory **based on sales trends**, supporting future strategic decisions. The successful implementation of this solution has **set a new standard in demand prediction** within the FMCG industry.

### Outcome



Decrease in  
Stock-Out rate of  
Trucks



Increase in  
Average Order  
Size



Increase in  
Average SKU per  
Order



Increase in  
Average SKU per  
Customer

### Conclusion

PepsiCo **leveraged TAZI's AI solution** to accurately predict daily snack demand at diverse sales points. This AI-driven approach, considering seasonality, pricing, and customer behavior, **optimized truck loading and minimized stock-outs**. The solution provided **decision support to thousands of truck drivers and sales reps**, while also creating a valuable corporate memory based on sales trends. The successful nationwide deployment led to an increase in average order size and SKU per order, **enhancing PepsiCo's competitive standing in the FMCG industry**.

### Testimonial

“With TAZI, our delivery operations have greatly improved. The automated sales prediction and vehicle loading list features have reduced stock-out rates and increased order size. TAZI's remarkable ability to consider factors such as seasons, prices, marketing activities, and gift offers has resulted in a 98% prediction accuracy for 86% of hundreds of products in our portfolio.”