

## PREDICTIVE DEMAND ANALYTICS FOR GROCERS

# Factor the Weather in Grocery Demand Shifts



Shoppers have more options than ever when it comes to getting their groceries. Online, delivery services, meal kit companies, and competitor stores are all increasing the pressure on supermarkets to provide a consistently good shopping experience or risk the loss of regular customers and revenue.

Convenience is critical. Freshness, quality, and selection are a must. And product availability is imperative. Grocery chains have to strive to provide all of the above while working on razor-thin margins. How does a supermarket balance inventory costs and perishables shrink in a way that doesn't sacrifice service levels? Better demand forecasting is the short answer, but what is the best way to significantly move the needle in this area?

### BENEFITS OF A MORE ACCURATE WEATHER-INFORMED DEMAND FORECAST

The weather has always been a critical external driver of purchasing behavior.

Grocers that incorporate weather-driven demand analytics into demand forecasting are able to keep store inventories better aligned with changing purchasing patterns. Factoring in the weather's influence helps companies move beyond replenishment that is based on recent or historical sales trends alone to a process that adjusts inventories based on when, where, and how much certain products will see demand increasing or decreasing due to upcoming weather conditions.

Weather-informed demand forecasts improve shopper satisfaction and return significant, repeating financial benefits to the business:

- **Better Manage Shrink in Fresh Categories**

Improving replenishment of fresh categories can generate millions of dollars in cost savings annually for leading chains. Companies can typically reduce shrink by 10-25% in fruit and vegetables and 20-35% in fresh meats with weather-informed replenishment forecasts.

- **Improve Availability to Increase Shopper Satisfaction and Sales**

Any time a product is not available there is a potential negative impact on revenue and customer loyalty levels. Optimizing store inventories with weather analytics can decrease out-of-stocks by up to 20%.

- **Limit Store Back-Stock Levels**

Loading up stores with extra inventory is one way to limit stock-outs but this approach increases inventory and operational costs.

Weather-driven demand intelligence can trim store inventories by 5-10% without sacrificing availability and improve labor efficiency in the stores.



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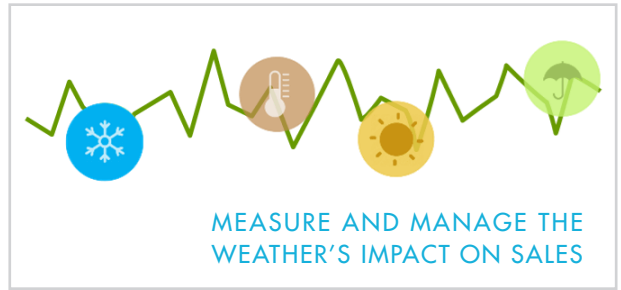
## GETTING STARTED

The quickest way for companies to precisely quantify how the changes in the weather affect sales and confirm the financial returns that more accurate, weather-adjusted demand forecasts provide is to begin with a pilot that includes an upfront Weather Impact Analysis.

The analysis process combines multiple years of product and store-level sales history with corresponding weather data by time period (day or week) for each location. Planalytics identifies the weather's influence on demand and the degree of sales variability these relationships generate across products,

time frames, and locations. Deliverables from the initial analysis include highlights of product-level weather sensitivities, the related revenue volatility, and the forecast accuracy improvements that are realized by incorporating weather analytics.

Once the weather impact modeling process is complete, a company can access and utilize live, updating weather analytics for various products over several weeks. By using the key metric



of Weather-Driven Demand (WDD) in real-time, the business can experience how demand forecasts adjust for changes in the weather and capture improvements in key performance metrics

## INCORPORATING WEATHER-DRIVEN DEMAND ANALYTICS

With the influence of the weather systematically updated and precisely translated into a business-friendly metric, grocers are able to rapidly incorporate WDD insights into existing processes and technology solutions. WDDs quantify how much the weather alone has affected or will affect demand, adding value to replenishment, performance analysis, and digital marketing.

Weather-Driven Demand analytics for grocers are delivered via the following three Modules:

### REPLENISHMENT MODULE

Improve product availability by factoring in weather's impact on demand for the next two weeks. (Product- and SKU-level analytics)

### FINANCE MODULE

Get a clearer view of true performance with weather-adjusted sales metrics. (Total & Department-level analytics)



### MARKETING MODULE

Optimize spend, offers, and messaging based on expected weather influences. (Category- or Product-level analytics)

In areas such as replenishment, business maximize the financial benefits of an improved demand forecast by automating WDD adjustments across hundreds to thousands of products. Planalytics has integration partnerships with Blue Yonder, SAP, Oracle, and other leading retail technology providers, helping companies optimize current solutions and quickly begin to extract additional (and recurring) value.

## WINNING WITH THE WEATHER

Planalytics has enabled Top 10 retail chains in both the U.S. and Europe to realize significant benefits with weather analytics. Examples of key gains supermarket clients have achieved by using the Replenishment Module include

Eliminate more than \$100,000 in shrink in a single fresh category in a single week.

Improve lost sales by over 15% versus a control group without weather analytics.

Improve "days of supply" metric by over 30%.



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