

## **Sarvari Ventrapragada**

### **Business Case**

Walmart teams up with The Weather Company to use weather forecast data to increase sales.

### **Background**

Most retailers anticipate the effect of seasonal weather changes on consumers' shopping preferences and put up umbrellas or snow-shovel displays in advance of rain or snow. But few are leveraging the subtle influence of weather conditions on everyday shopping choices of consumers.

Psychologists have long been studying the effect of weather on people's moods and daily life with studies stating that the warm weather and presence of sunlight makes people happy and alert whereas the overworking immune system in the winter leaves people gloomy and lethargic. It should come as no surprise that weather is a foundational driver of consumer behaviour. A study led by National Centre for Atmospheric Research concluded that almost every sector of the economy is sensitive to weather changes, with about 8% of the retail economy affected by weather variations.

### **Big Data**

The Weather Company has 75 years' worth of information about temperature, dew points, cloud cover percentages and more. Advances in technology have enabled the company to predict billions of data points and hyper-local forecasts. Walmart, in an extensive partnership with The Weather Company is unlocking the potential of this data and delving deeper into correlations between weather and store sales at zip code level.

### **Goal**

To anticipate consumer needs as per everyday weather conditions and better manage inventory and for increased sales.

### **Findings and Results**

The analysts at Walmart discovered from the data that low winds have an impact on berry sales. Ideal berry weather conditions turns out to be low winds with temperature below 80 degrees. Using this information the marketing team served up digital ads in zip codes with these weather conditions, tripling their berry sales. Correlating weather data with inventory, Walmart discovered that when hurricanes were approaching strawberry pop tarts left the shelves like hot cakes. Presumably because Pop Tarts do not require refrigeration and can be eaten out of the box, perfect during power outages.

### **Applications for Other Companies**

By leveraging weather information, Walmart had an innovative approach to increase local stores sales. Although weather cannot be controlled, it can be measured and monitored and Walmart was able to turn it from an unmanageable demand influence into a quantifiable factor and execute against it. Though weather information itself may not be particularly useful for every kind of retailer,

for example electronics, by following the Walmart approach of collecting data from a variety of different sources and valuable collaborations with technology driven companies, businesses can glean intelligence from unexpected sources and take better control of their marketing and operational efforts.