

# WEATHER-RESPONSIVE MARKETING

MAKING MARKETING INTELLIGENT







# MARKETING MODELS FROM WEATHER DATA

This anecdotal evidence indicates that companies transform weather data into models, which they then use for sales forecasting. A great example of this is how in mid-2006, Wal-Mart reduced its sales forecasts since swimming pool supplies and air conditioner sales became adversely affected by unusually cool summer weather. Popularly called weather-based marketing, weather data is used to help boost marketing campaigns. It activates a potent kind of marketing automation utilizing real - time weather data to improve ads performance and personalized marketing messages based on the local weather of consumers. In other words, marketers can serve ads for raincoats during the rainy season,

windbreakers when it's windy, breathable vests when it's hotter, and thermals when it's snowy. Coca-Cola developed vending machines that distinctively changed the price charged for soft drinks depending on the temperature variations. Whenever the weather grew hotter, the vending machines escalated the price of soda.

People are kept at home by bad weather, especially during extreme temperatures, snow, and rain. These weather conditions have reduced the number of people going out shopping, making it seem less attractive than online shopping. It has also considerably reduced both store traffic and sales.





### ROLE OF WEATHER IN MARKETING

Prior studies have shown that weather affects people's mindset, trading decisions, and social behavior (1). These influences cannot be overemphasized. Research has established that weather variables can affect human behavior, and do so in diverse ways.

There are many studies that derive the conclusion that weather affects the sales and performance of the product as it influences consumers' buying patterns.

The temperature influences certain human consumption behaviors.

The mood of consumers becomes altered by weather, which in turn influences their buying behavior and recommends what to purchase, where to purchase, and how much they are willing to spend<sup>(2)</sup>. For example, the type of clothing humans wear is dependent on weather conditions at the given time - we put on warmer wear in the winter and lighter clothes in summer. In other words, temperature changes determine what kind of clothes consumers are likely to purchase. clothes consumers are likely to purchase.





### SALES FORECASTING: HOW WEATHER IS MAKING IT EFFECTIVE

Sales forecasting becomes effective and productive when marketing companies engage weather data. The reduced turn-out of consumers at stores has been attributed to compulsory stay-at-home conditions due to bad weather. In this case, online retailers are at the advantage of getting more sales during bad weather conditions. A study shows that traffic to online businesses such as furniture, clothing, wholesale retailers, home delivery increases

during extreme weather conditions. To simplify this, the sales on online platforms increase to over 30% during rainy and sunny days, compared to pleasant weather.

The online retail giant Amazon uses this understanding to conduct its prime day sale in mid-July. During this time of the year, heat is high in some, and overcast weather is noticed in other parts of the world, facilitating increased sales.

# **EXPLOITS OF WEATHER**IN MARKETING

The weather influences a consumer's emotional/mental state. Another study showed that exposure to sunlight significantly blossomed consumption levels, alongside the amount spent on each item purchased.

There are chances that consumers would spend more on coffee, alcohol, and tobacco during cloudy conditions.

Weather conditions promote the sale of specific products. Apart from the obvious uptick in seasonal sales of boots and coats during winter and sunblock and swimwear during summer, other products are known to increase sales during weather changes.

The research stated that consumers were willing to

pay 37% more for green tea and more than 56% for a gym membership after





WEATHER-RESPONSIVE MARKETING







A study shows that grocery stores in the U.K experience a 22% rise in sales of carbonated drinks when temperatures rise to 65°F, along with a 20% decrease in the sales of juice.

By staying abreast of the weather forecast, marketers can plan ahead and save millions on their campaign budget. The smart incorporation of weather data was recorded, and it was found that with a drop of 1.8°F, the sales of mousetraps increased by 25%. A 68°F increase resulted in a 10% boost for convertible cars, and a 70°F temperature during spring seasons spiked the sales of hair removal products by a whopping 1400%

A new model was curated by weathertrends360, called "The

Profit of One Degree" which demonstrates the massive impact on consumer behavior when there is only a 1°F change in temperature. This model shows that a decrease in 1°F boosts the sales of portable heaters by 20 % and electric blankets by 10%. On the flip side, an increase in 1°F identifies a sales rise of 11% in sun-care products.

While the market combination is one area in which marketers shine, they have failed to embrace weather data to gain consumer and competitor insight and create superior marketing plans. Putting weather-related data into the analysis can help marketers become effective and influential(3). While merchants frequently talk about how weather patterns have caused various effects on sales, it is important to focus more on using weather-related data to drive future marketing plans.

#### Increase in weekly sales during a rise in temperature by 1°F



2% Soft drinks



24% Air conditioners



11% Suncare products



4% Infant apparel



13% Hedge Trimmers

### Increase in weekly sales during a drop in temperature by 1°F



2% Soup



15% Portable heaters



25% Mousetraps



2.50% Softline goods



5000+ units lipcare







# APPLYING WEATHER DATA

Regardless of the location, weather conditions propel the manner in which consumers live their lives. Therefore individuals check out the weather from time to time to plan their lives. Since the weather has turned into a fundamental level of consumer behavior, campaign underperformance by retailers has been blamed on the "weather excuse." However, this doesn't have to be the case. Additionally, there is the possibility that marketers can measure the weather alongside its impact, explaining past marketing results and better predicting the way by which weather patterns might affect patterns of consumption in the future.

With this information, marketers can get themselves prepared accordingly, thus making the weather a reason for results and not just an excuse. Sophisticated marketers are beginning to integrate this strategy into communication decisions, pricing, and product assortment<sup>(4)</sup>.

Weather data can drive realtime forecasting for marketers, particularly for their exact location regardless of where they are across the globe and whenever they need it - even up to 30 billion times daily. With the infusion of weather forecasts into cognitive thought, marketers of clothing stores can provide details of upcoming weekend showers for customers in their locations. This will help the sales of clothing like windcheaters and jackets in that region. A centralized system will help the marketers understand particular regional trends as they are informed about what the consumers are buying when they are buying, what item types to buy, and many more. The use of these cognitive solutions can assist marketers in becoming more responsive through their creation of truly personalized campaigns aimed at specific timelines/moments, entirely requiring reduced involvement from the marketing team.





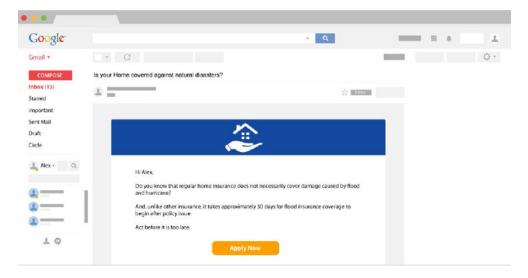


### PROVEN APPLICATIONS OF WEATHER-RESPONSIVE MARKETING

#### **INSURANCE PROVIDERS**

Insurance companies use weather data to send periodic trigger warnings to their customers. The clients can now equip themselves from any calamities, and the insurers can reduce loss incurred from claims. A poll reported that 52% of the victims preferred to be alerted beforehand to safeguard

themselves and avoid the damages. With the addition of weather trigger warnings and tailored marketing campaigns, insurance providers have identified an increase of 72% in advertising interaction rate compared to the industry benchmarks related to weather-responsive marketing.









#### **PHARMA & HEALTHCARE COMPANIES**

Pharma and healthcare companies have utilized the weather forecast data to market their products such as cold, cough, and flu medicines, especially during a dip in temperature below 30°F, sunblocks in regions where UV values are high, and lip care in windy

conditions. Vicks Vaporub is one such company that has doubled its sales and reduced its CPM by 30% by utilizing the weather triggers in marketing campaigns.







#### **BEVERAGES INDUSTRIES**

Beverage companies are running advertising campaigns that get activated only when the temperature is apt to induce the desired purchase intent amongst consumers. This European beverage company Stella Artois designed a plan by mapping historical weather

data and their apple cider beverage sales metrics to identify the suitable durations. The campaign's CPM was 50% lower, and the sales of the product saw an increase of 6% annually, earning the company over £15,000 in sales.







#### **CLOTHING COMPANIES**

Weather-based marketing has offered an exponential growth in sales for this fashion retailer, La Redoute. The fashion conglomerate included an entire billboard responsive to the weather forecasts, temperature rise, and rainfall. The billboard displayed creatives where

the model is bundled up during cold temperatures and wore a swimsuit during sunny weather. This marketing campaign brought a 17% increase in sales for the company and a 34% increase in their website traffic.













# STRATEGIES THAT WORK

The use of weather data can upgrade the marketing campaign of your brands and products. It helps design smarter campaigns based on real-time temperatures and conditions instead of just expected seasonal changes.

Marketers can create personalized messages in video promotion format or any other format. Such personalized messages can be programmed to change depending on location and weather, and shopper behavior. The customized messages utilize behavioral and advertising data. At the same time, the marketer seeks to

understand the reaction of its consumers to weather concerning sales of its products. Getting to understand your customer and their behavior becomes easier when you understand the weather patterns. Especially when weather trends reveal the usefulness of the products being advertised. Ad creatives can be rotated and suited to match the prospective location/ customer's weather report, project dynamic, and localized weather information into the ad, modify levels of spends on the campaign, and regional bidding decisions based on local weather conditions.

#### Results

The 'Weather Specific' ads outperformed the Generic ads within multiple engagement categories:





89% Link Clicks





33% Post Comments





67% Cost-Per-Clicks Savings

Weather responsive ads massively outperformed standard ads for Molson Coors Beer weather triggered Facebook campaign







Economically, the weather is considered the second biggest consumer behavior influencer.

#### **CAPTURE IT ALL**

Universally, the weather is a large consumer purchase behavior driver. It helps marketers understand the receptiveness and mood of campaign messages and directly impacts sales of most products and services. Economically, the weather is considered the second biggest consumer behavior influencer. Marketers should be aware that weather has a significant bearing on the types of decisions and actions taken by consumers, alongside what food they eat, how they travel and where they go, the kind of clothes they wear at certain times, and many more.

Importantly, understanding how to analyze the different weather data

counts for a lot. Also, understanding the weather impact features such as website traffic, sales in specific categories, store traffic, and others is important. This information will then assist in determining the type of products to shelve, the volume to keep in stock, product types to market alongside the kind of message to pass across, the assortment of other segments, and pricing.

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# **LEVERAGING**WEATHER DATA

Ambee, the environmental intelligence company, provides accurate weather data using its proprietary data science techniques to utilize weather-responsive marketing strategies effectively. The weather has a deep-rooted effect on purchase behavior and consumer psychology.

Ambee's weather forecasts and historical data help marketers correlate the sales data with weather information to provide a nuanced understanding of product marketing amongst brands.

Ambee has built an environmental index for the entire world with

granularity scaling down to street levels. When equipped with these insights from Ambee, marketers can design weather-based marketing campaigns to reach customers and deliver an impactful promotion instantly.

With seasonality already a permanent part of the traditional marketing plans, Ambee's data helps marketers understand the weather patterns in real-time at a hyperlocal level.

This reinforcement has proved its place and will help brands make choices that will drive the best results.





#### **REFERENCES**

- 1. Denissen, J. J. A., Butalid, L., Penke, L., & van Aken, M. A. G. (2008). The effects of weather on daily mood: A multilevel approach. Emotion, 8(5), 662–667.
- 1. Hirshleifer, D., Shumway, T., 2003. Good day sunshine: stock returns and the weather. Finance 58 (3), 1009–1032.
- 1. Larrick, R.P., Timmerman, T.A., Carton, A.M., Abrevaya, J., 2011. Temper, temperature, and temptation heat-related retaliation in baseball. Psychol. Sci. 22 (4), 423–428.
- 2. Kivetz, R., Kivetz, Y., 2008. Reconciling mood congruency and mood regulation, working paper, Columbia Business School.
- 3. Koetse, M.J., Rietveld, P., 2009. The impact of climate change and weather on transport: an overview of empirical findings. Transportation Research Part D: Transport and Environment 14 (3), 205–221.
- 4. Stecke, K.E., Kumar, S., 2009. Sources of supply chain disruptions, factors that breed vulnerability, and mitigating strategies. Journal of Marketing Channels 16 (3), 193–226.