# HELPING A LEADING HOSPITALITY COMPANY OPERATIONALIZE EXTERNAL EVENTS DATA

Data & Analytics Case Study

#### **CLIENT SITUATION**

The market for hospitality services remains uncertain as the COVID-19 pandemic continues to impact the rate of travel and as pressure from new industry players rises. With these factors at play, it has become increasingly important for hospitality companies to understand and make the most of changes in demand that are often driven by events.

Prior to the pandemic, large events such as the Superbowl drew an excess of 150,000 out-of-state travelers, resulting in hotels booked to capacity. Now, as the world slowly recovers from COVID-19, having timely information about the status of events, such as if they are active, cancelled, or postponed, is crucial for hospitality organizations seeking to conserve costs and optimize revenue.

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Global hospitality companies capture a wealth of information with every reservation: the rate, room type, reservation type, number of beds, and much more. They can also obtain information about their competitors' performance through established data providers, like Smith Travel Research or TravelClick. Capitalizing on these data elements has become a standard practice for most hoteliers. However, relying solely on the information derived through one's own reservation process and the metrics of competitors is not enough to stay ahead in the modern hospitality industry. Instead, companies must explore new ways to acquire and utilize information.

#### **OUR APPROACH**

To acquire high-quality external events data and integrate it into our client's ecosystem, we first established relationships with two of the largest events data vendors. We assessed their data against specific criteria, including geographic coverage, data quality, price, and event dimensions like venue, category, and geographic coordinates.

Once we had selected a vendor, we conducted an extensive analysis to better understand how our client could utilize the events data to make strategic decisions. We leveraged various tools including Python, Tableau, and Google Big Query to build custom geo-mappings and calculate the localized impact of events on hotel performance. In doing so, we discovered two key takeaways:

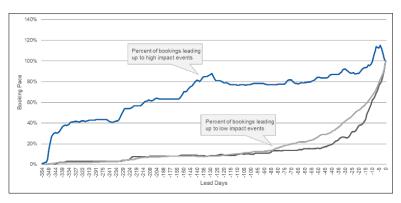
**Events affect booking pace.** For many hotels, the pace at which reservations were made leading up to high impact event days was

much higher than days without events. On high impact event days – defined as days when occupancy and event impact were both extremely high – one hotel secured 40 percent of its reservations almost a year in advance, while on non-event days 40 percent of reservations were not booked until 30 days in advance.



#### • Learnings in practice:

Pay attention to the pace of reservations made for high impact event days to optimize your operations. This allows hotel owners to reserve inventory when an event is announced and sell rooms at a higher rate closer to event day when competitor inventory may be depleted.



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**Not all events are equal.** Multi-day events attracting out-of-town visitors, such as a conference, can be more valuable for hospitality companies than local events like concerts or small festivals, even if the local events are large and considered high impact.

• Learnings in practice: Define which types of events are most correlated with hotel performance to streamline the number of events to consider when optimizing metrics like rate and inventory.

Next, we determined appropriate rate increases to demonstrate the potential value our client could realize by using the events data. Our approach consisted of:

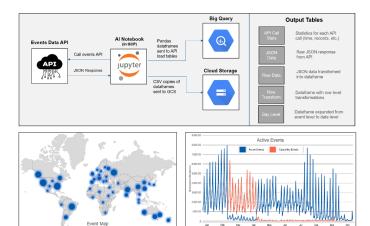
- **1. Identifying lost revenue relative to competitors.** This step established a benchmark for how much revenue was potentially missed by charging a rate lower than competitors.
- **2. Computing lost revenue on high impact event days.** We derived event related losses by calculating how much revenue was potentially missed by charging a rate lower than competitors on high impact days.
- 3. Determining future revenue. We assumed in this scenario that the company would have predicted these high event impact days and proactively raised their rates. We expanded this approach to all hotels globally and derived a potential ROI of over 90 times the annual investment.

Once our client discovered what they could learn from external events data and saw how it could be leveraged to drive their strategic agenda, we began to acquire and operationalize the data on a global scale.

Landing the data. We built an extract, transform, load (ETL) pipeline to land the events data in our client's Google Cloud Platform (GCP) environment driven by Al Notebooks written in Python.

**Making the data accessible.** We created dashboards to allow users to explore the newly acquired events data.

**Incorporating the data into processes.** We worked with data scientists to develop predictive models to forecast occupancy based on events.



#### **VALUE DELIVERED**

With our support, the client obtained a new channel of insight that enabled them to adapt to shifting consumer behavior more quickly and remain competitive in today's challenging hospitality climate. Using the events data, the client can now more effectively determine rate increases, enhance the guest experience, and better forecast the eventual return of event-related demand.

### ABOUT NORTH HIGHLAND

North Highland makes change happen, helping businesses transform by placing people at the heart of every decision. It's how lasting progress is made. With our blend of workforce, customer and operational expertise, we're the world's leading transformation consultancy. We break new ground today, so tomorrow is easier to navigate.

