Using analytics to benefit and attract customers

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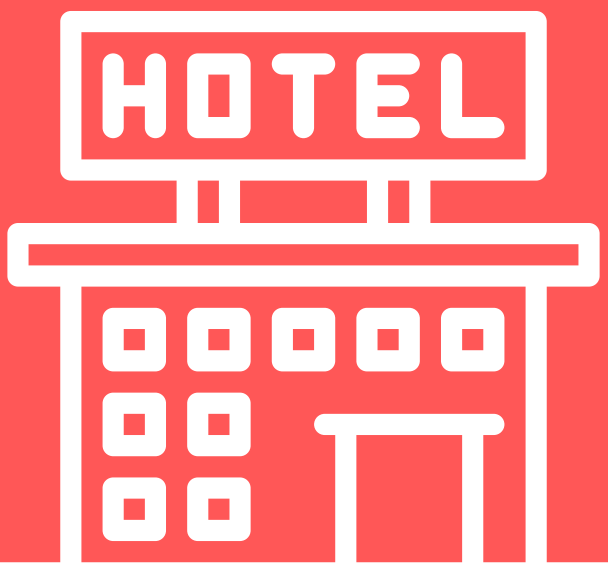
TBO HOLIDAYS BUSINESS

- HOTELS
- INSURANCE
- AIRLINE BOOKINGS
- SIGHTSEEING
- PACKAGES
- CAR
- CRUISE
- ACADEMY



VISION FOR REPORT

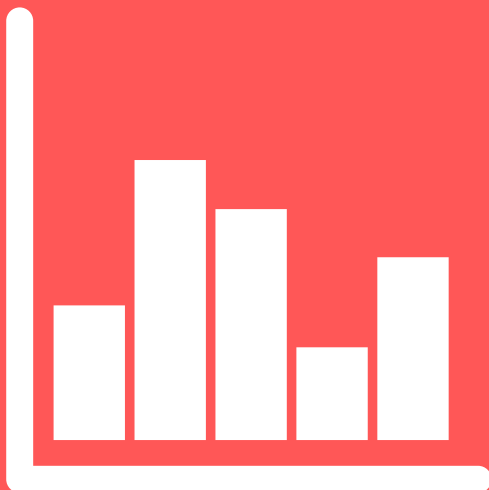
The premise here is to deliver timely reports and newsletters to both existing and potential customers. These will deliver stories and insights that directly or indirectly boost their business, utilising either existing data, data that can be produced, or buying third-party data.

I have limited the scope to hotel bookings for specificity, and lean into the BnB domain later. The user base primarily consists of luxury hotels, booked by organisations for their employees.

DATA AVAILABILITY & VALUE PROPOSITION

As far as I have understood the booking platforms business and public datasets, and taking into account the capabilities of rival platforms like Goibibo and HRS Group, the following directions can be drawn from existing data:-

- Booking history
- Reviews, sentiment analysis, and online reputation
- Payment history and size
- Travel history and trends geographically
- Food ordering data
- Relevance of images of venue
- Cancellation history and reasons



DATA AVAILABILITY & VALUE PROPOSITION

Hence, preliminary questions of interest can be generated, tested, and later delivered after packaging as user stories or business value propositions. These will be interesting reads, possibly generating more brand value for TBO, and promising potential clients benefits on signing up with TBO.

Some of the most important inferences of interest from the mentioned data could be:-

- At what stages are customers falling out of the booking process? What UI/UX changes can possibly help?
- What are the major reasons for negative reviews and/or cancellation of bookings? What exactly happened to customers who aren't renewing their engagement?
- Which negative review in particular is causing customers to not book a particular hotel, based on when the review was posted vis a vis clickthrough rate after it was posted?
- What cuisines of food are the most desired among different demographics of data?

DATA SNAPSHOT

The data sourced from Kaggle has various interactions and demographic features, which is illustrated below.

is_canceled	lead_time	arrival_date_year	arrival_date_month	arrival_date_week_number	arrival_date_day_of_month	stays_in_weekend_nights	stays_in_week_nights	adults
0	342	2015	July	27	1	0	0	2
0	737	2015	July	27	1	0	0	2
0	7	2015	July	27	1	0	1	1
0	13	2015	July	27	1	0	1	1
0	14	2015	July	27	1	0	2	2
0	14	2015	July	27	1	0	2	2
0	0	2015	July	27	1	0	2	2
0	9	2015	July	27	1	0	2	2
1	85	2015	July	27	1	0	3	2
1	75	2015	July	27	1	0	3	2
1	23	2015	July	27	1	0	4	2
0	35	2015	July	27	1	0	4	2
0	68	2015	July	27	1	0	4	2
0	18	2015	July	27	1	0	4	2
0	37	2015	July	27	1	0	4	2
0	68	2015	July	27	1	0	4	2
0	37	2015	July	27	1	0	4	2
0	12	2015	July	27	1	0	1	2

USE CASES

On the basis of first hand market research and consulting with travel reports from Expedia, following are the strongest use cases where custom analytics can serve hotels better:-

- Understanding audience - By analysing demographic data, hotels can understand their key segment. Based on that, they can either change offerings to focus on the segment, or improve on other factors to attract the customers they want.
- Staying patterns - Hotels can identify whether short term stays or long term stays are more successful in their particular case. Based on that, they can improve on their services.
- Cancellation patterns - Clickthrough rate and bounce rate from the website can help determine which parts of the process or what specific information is causing customers to lose interest. Moreover, if cancellations are being done post booking, the reasons can be collected via forms and presented as insights once there is enough data.
- Managing online reputation - Each hotel venue can get its own indices of online reputation and visibility, a measure of how desirable the venue looks to a customer scrolling by on the platform.
- Demand Prediction - Demands for rooms or packages can be predicted well in advance for festival seasons, enabling smarter pricing in the process.

GOING BEYOND

Besides the previously mentioned use cases, data analytics can also transform hospitality by alleviating the common challenges in the industry. Some of these are listed:-

- Planning packages as per local context - Using geographic and economic insights, the most impacted secondary businesses (arts, food, alcohol) can be included smartly in packages.
- Sustainability - Considering the glaring issue of managing perishables and consumables, data platforms can be potentially used to monitor and achieve targets in sustainable use of resources.
- Managing Staff and Cash Flow - A centralised place to show expenditures, revenue, and other financial metrics can be used efficiently for managing cash flow, hiring and retaining staff, and inventory.

TARGETING THE HOSTELS/BNB/DORMS SEGMENT

In order to pursue customers in this segment, their concerns of shorter stays and lower costs have to be satisfied. For a property owner to use TBO Holidays as their preferred listing platform, the following should be considered and acted on :-

- Cleanliness is priority for travelers with two key dimensions: the traveler's perspective (recent guest reviews) and the property's new enhanced cleanliness protocols
- Flexibility to cancel without penalty
- Access to information on travel restrictions and quarantine measures
- Online ratings and reviews
- Success rate of TBO Holidays over time

KEY METRICS

Actionable metrics have to be defined and used to make the outreach more quantitative, exact, and meaningful.

- Average Daily Rate - average income earned per room allotted to a visitor. This is calculated per day as well as week. Clients can see in which parts of the month their ADR drops or rises, to find actionable times.
- Average Occupancy Rate - fraction of rooms that are occupied at a given time, this metric presents a picture of how many active the hotel is, and how much more it can afford to accommodate.
- Average Rate Index - metric used to measure average daily rate compared to a hotel's competitive set.
- Website Conversion - actionable data from exit pages, clickthrough rates of pages, and bounce rate of landing pages illustrate which parts of the booking process are more complex.
- Average Weekly Rating - the aggregate of ratings received every day, averaged over every week, is an indicator of the hotel's present reputation.
- Expected Booking Rate - customers can be shown a comprehensive picture of the demand expected next month, generated by predictive analytics and machine learning.
- Bookings By Room Size/Type - grouping these will explain which types of stays are more often encountered
- Cancellation Rate - fraction of customers cancelling their booking in a period of time. Best to be calculated weekly.
- Average Stay Period - longer or shorter stays might be more successful in a hotel because of various reasons. This metric will be used to help clients discover untapped potential in the stay periods that they cannot cater to currently.
- Demographics by Age Groups - a pie-chart type representation of age groups, professions, or gender, can also aid in customer understanding.