# **CASE STUDY ON SUNSHINE HOTELS AND RESORTS**

## **Learning Outcomes:**

## Successful completion of this task will enable the following learning outcomes:

## Conversion of complex business problems to analytical problems.

## Typical tasks handled by analysts in an organization

## Univariate, Bivariate and Multivariate analysis of data

## Data storytelling

## **Problem Context:**

This assignment is related to the hospitality business and specifically covers one of the fast-growing hotel companies in India called Sunshine hotels and Resorts operating over 50 hotels mainly in the midscale segment. The company commands a Lion’s share in midscale travel across India.

| **TABLE SHOWING BRAND STRUCTURE OF SUNSHINE HOTELS AND RESORTS** | | |
| --- | --- | --- |
| **BRAND CATEGORIZATION** | **BRAND NAME** | **STAR CATEGORIZATION** |
| Economy | Essentials | 3 Star |
| Midscale | Comfort | 4 Star |
| Upscale | Premium | 5 Star |
| Upper upscale | Grand | 5 Star Deluxe |

### Channel Mix

The hotel bookings are processed through 2 main channels which are further categorized in sub- channels. These channels are listed in the table below. Although these channels are specific to Sunshine Hotels and Resorts, a large/ broad distribution system remains similar for all hotel companies. Major variations are usually observed in the channel mix (Channel Mix refers to the percentage of business received from each of the sub-channels) for each of the hotels. Channel mix is dependent on but not limited to the nature of the hotel, location, price range, categorization, brand, etc.

| **CHANNEL TYPE** | **SUB CHANNEL** |
| --- | --- |
| Online Channels | Online Travel Agents |
| Global Distribution Channel |
| Brand Website |
| Offline Channels | Direct |
| Unit Sales Team (Onsite Sales Team based within the hotel) |
| National/ Regional Sales Team (Offsite sales team) |

## **Problem Introduction and Background**

In this assignment, we specifically refer to the National/ Regional Sales Team’s performance which is an offline channel often based in remote/ offsite locations. These teams tend to handle the contracting part and are a major channel that drives CVGR business. CVGR refers to the Company Volume Guarantee Rate which is negotiated by hotel sales teams with various bulk clients every year. A large chunk of this CVGR business is handled by National/ Regional Sales Teams. Unit Sales Teams typically contract CVGR contracts that are sourced from their local source markets. Often the source markets of other cities are handed over to the National Sales Teams to handle effectively and manage relationships.

The process of booking a hotel is largely well defined is typically handled by Property Management System which is akin to an ERP that can handle day to day tasks including but not limited to manage new reservations, manage arrivals and checkouts, manage folios, log guest requests and billing etc. However, in case of National Sales Team/ Regional Sales Teams, the process is manual where the booking request coming to these offices is sent to the unit hotel for processing thus depriving these offices an access to good quality transaction data UNLESS an automation system is deployed by the firm. In most of the midscale hotel companies in India, automation is a luxury in these offices since it is considered as a cost that can’t be justified with measurable performance. Because of this, these offices try to maintain their own transactional data which typically is in the form of an Excel sheet and includes daily transactions being done by these offices.

### Performance Evaluation Matrix

Performance of all Sales resources in the company is judged on two main criteria:

* Generated amount of Room Nights during assessment period
* Generated Room revenue during assessment period

Above matrix is also used to assess Sales office performance. Apart from above, there are more matrices for this like:

* Per person revenue and room nights contribution
* Annual revenue and room nights contribution

## **Data:**

A hotel firm can have multiple Global/ National and Regional Sales offices across the territory of operations. Given data is from Bangalore Regional Sales Office in csv format and includes details of each of the individual transactions from January 2018 till July 2022. Each row denotes each transaction made at the Regional Sales Office. Following is the data dictionary for quick reference on each of the columns:

| COLUMN | COLUMN TYPE | DESCRIPTION |
| --- | --- | --- |
| hotel\_name | Text | This column features the hotel names |
| City | Text | This column shows the city that the hotel is based in |
| hotel\_type | Text | Has 2 distinct values – Business and Leisure. Business hotels are tagged as “Business” and leisure hotels are tagged as “Leisure” |
| hotel\_category | Text | This is an encoded column with Economy= 1, Midscale= 2, Upscale= 3 and Upper Upscale= 4 |
| Zone | Numeric | This is an encoded column with North = 1, East= 2, South= 3 and West= 4 |
| room\_nights | Numeric | This column shows the number of room nights |
| room\_revenue | Numeric | This column shows the revenue booked from the room nights |
| business\_source | Text | This column refers to the source of business divided among:   * Corporate: These are bulk customers. Normally companies are identified as corporate customer who negotiate in bulk for their employees travelling across the country. These are referred to as CVGR as clarified before. * Travel agent: These entities book for their customers with the hotels and work on commission basis. They may be processing group as well as small requirements. They help hotels to reach out to customers who are difficult to reach out to. * Travel Management company: These are new age organizations that have seen a tremendous evolution specially post the pandemic period. They assist large corporate houses to manage their travel booking requirements. They take care of these requirement on behalf of the corporates and in lieu charge a small service fee to them. They often work without any commissions. * Social: These are direct customers who chose to process offline reservations directly with the hotel company. |
| account\_name | Text | * This column refers to the name of the account (Company/ Travel Agent/ Travel Management Company) for which the booking has been processed. * It is worth noting here that account\_name to Travel Management Companies (TMC) are updated as TMC Name/ corporate which signifies which TMC is booking for which corporate. For example, “FcM/ Landmark Group” denotes that FcM Travel solutions has processed that particular transaction on behalf of Landmark Group. In cases where we don’t have the name f corporate disclosed by the TMC, only TMC name features in account\_name. |
| sales\_portfolio | Text | * Entire team at this Sales Office comprises 4 proactive sales team members each handling a portfolio. Portfolios are denoted as Sales Portfolio 1, 2, 3 and 4. * Each portfolio is handled by an individual salesperson. Furthermore, we have 3 members in support staff who act as reactive sales team members. They don’t maintain relationships on an active level but assist the proactive sales team with day-to-day tasks such as maintaining booking communication, handling incoming calls and mails etc. In some of the cases, when a booking is received from a source that is not being handled by the proactive sales team, it is assigned to the support staff and hence its portfolio is developed organically. |
| Month | Text | This column denotes the month in which the booking is materialized. |
| year | Numeric | This column denotes the month in which the booking is materialized. |

Note:

There are 2 columns in this dataset that could qualify as target columns – Room Revenue and Room Nights. Each of the hotel companies follow different measure and hence the target column changes based on context. In case of Sunshine Hotels and Resorts, we will take Room Nights as target column.

## **Problem Statement:**

You have been hired as an analyst under senior data scientist by the hotel firm to basically analyse the available data and derive interesting insights which could be of benefit in creating a short-term, mid-term and long-term strategy.

# **Task:**

Delve deeper into the data and perform univariate, bivariate, and multivariate analyses to understand inter-relationships within variables. Answer the following questions using your analysis.

Q1. What is the correct order of decreasing productivity (Room Nights) of this sales office?

Hints:

* Rooms Per day (RPD) is an industry-standard term that is derived as Total Room Nights / Number of days. Productivity is often assessed based on Rooms/ Day and not Total Room Nights.
* Since the data is till 31st July 2022, consider 2022 only till the end of July (Technically having 212 days only)

Q2. One of the Regional Operations Directors has claimed that Sales Team has been underselling the hotels at cheaper rates then as compared to other sales channels. He also claims that CVGR rates have been consistently decreasing. Overall, the company has done an ARR of 3,927 across all its hotels. The sales Manager is concerned about this open statement and wishes to verify this. Please analyze the given data and provide him with supporting information to counter/ accept the allegations against his team and chose the best possible answer.

Hints:

* ARR is an industry-standard term that stands for “Average Room Rate” that is calculated as Total Room Revenue/ Number of Room Night

Q3. In order to prepare the strategy for next year, the Sales Manager needs to understand the hotel names where the productivity has degrown as compared to the next best year (2019). This will help him prepare an action plan for performance improvement. He will need the top 3 hotels that have shown the highest degrowth % in 2022 as compared to that in 2019:

Hints:

* Since 2022 data is not for the entire 365 days, it will be better to assess the improvement in terms of RPD (Rooms/ day)

Q4. Sale Manager wants to assess further opportunities of improvement and hence wants to know the business sources that have degrown in 2022 as compared to that of 2019.

Hints:

* Since 2022 data is not for entire 365 days, it will be better to assess the improvement in terms of RPD (Rooms/ day)

Q5. Historically, the travel agents have produced for leisure destinations more then as compared to that of business destinations. However, sales manager has a hunch that that this source market is not able to produce sufficiently for leisure destinations and has instead got more inclined towards travel to business destinations post pandemic drastically changing business dynamics. You check the data to conclude inference and found the hunch of sales manager to be true. Leisure contribution of total travel agent business has dipped from \_\_\_\_% in 2018 to \_\_\_% in 2022

Hints:

* Since 2022 data is not for entire 365 days, it will be better to assess the improvement in terms of RPD (Rooms/ day)

Q6. Managing Director of the company has decided to reward the best performance based on growth as compared to last year to the individual salespeople. 3 Salespeople from across the company shall be facilitated and awarded. At least two top performing salesperson’s data is required by Managing Director’s office. Final judgement is specifically based on performance on luxury hotels (Upper upscale)

Hints:

* Since 2022 data is not for entire 365 days, it will be better to assess the improvement in terms of RPD (Rooms/ day)

Q6. From one of the previous questions, it is now known that the Sales Office is struggling to perform for leisure destinations. The easiest way to prepare the strategy is initially to look at what used to support the office with business in the past and has ceased to perform/ drastically be decreased in performance. Check the top 2 accounts that have shown drastic degrowth over 2019 (Since 2019 was the next best year of performance) and for which of the hotels (Top 2)

Hints:

* Since 2022 data is not for entire 365 days, it will be better to assess the improvement in terms of RPD (Rooms/ day)