

Hotel Booking Data Analysis

Business Problem

In recent years, City hotels and Resort Hotels have seen high cancellation rates. Each hotel is now dealing with a number of issues as result, including fewer revenues and less than ideal hotel room use.

Consequently, lowering cancellation rates is both hotels primary goals in order to increase their efficiency in generating, and for us to offer thorough business advice to address this problem.

The analysis of hotel booking cancellation as well as other factors that have no bearing on their business and yearly revenue generation are the main topics of this report.

Assumptions

1. No unusual occurrences between 2015 and 2017 will have a substantial impact on the data used.
2. The information is still current and can be used to analyze a hotel's possible plans in an efficient manner.
3. There are no unanticipated negatives to the hotel employing any advised technique.
4. The hotels are not currently using any of the suggested solutions.
5. The biggest factor affecting the effectiveness of earning income is booking cancellations.
6. Cancellations result in vacant rooms for the booked length of time.
7. Clients makes hotel reservations the same year they make cancellations.

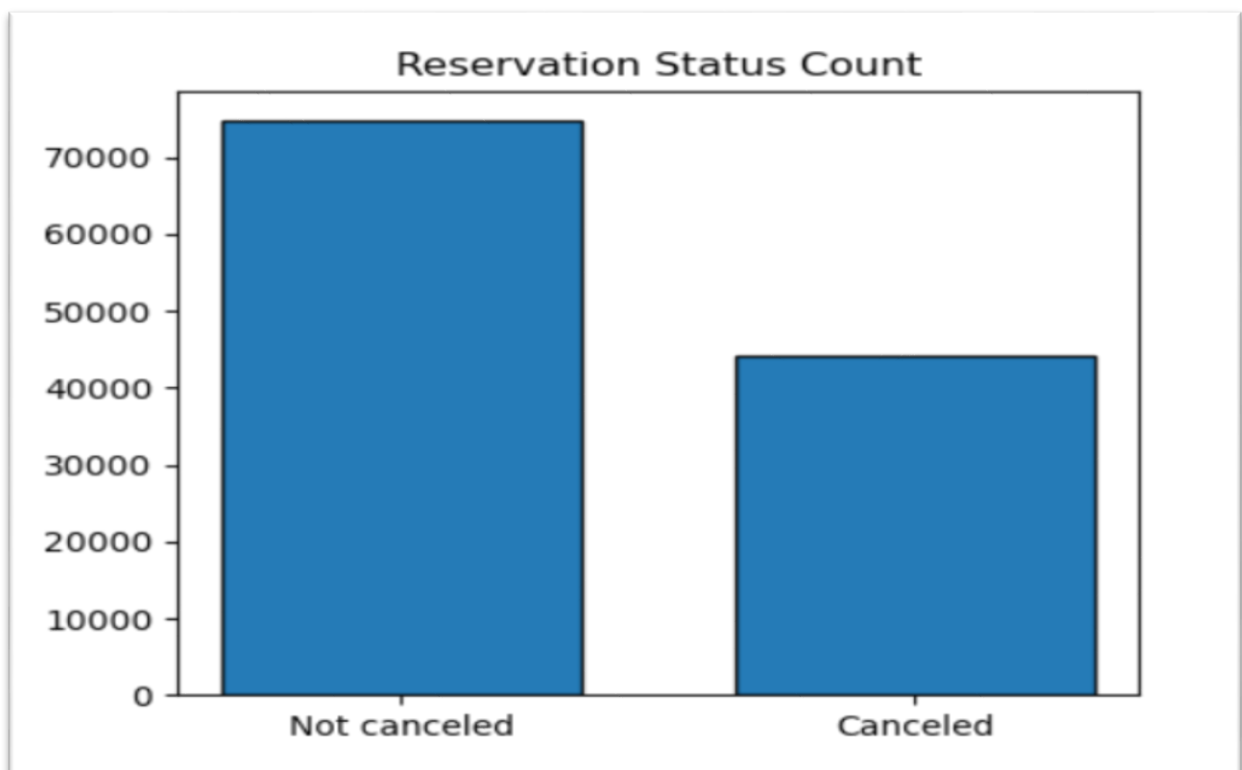
Research Questions

1. What are the variables that affect hotel reservation cancellations?
2. How can we make hotel reservations cancellations better?
3. How will hotels will be assisted in making pricing and promotional decisions?

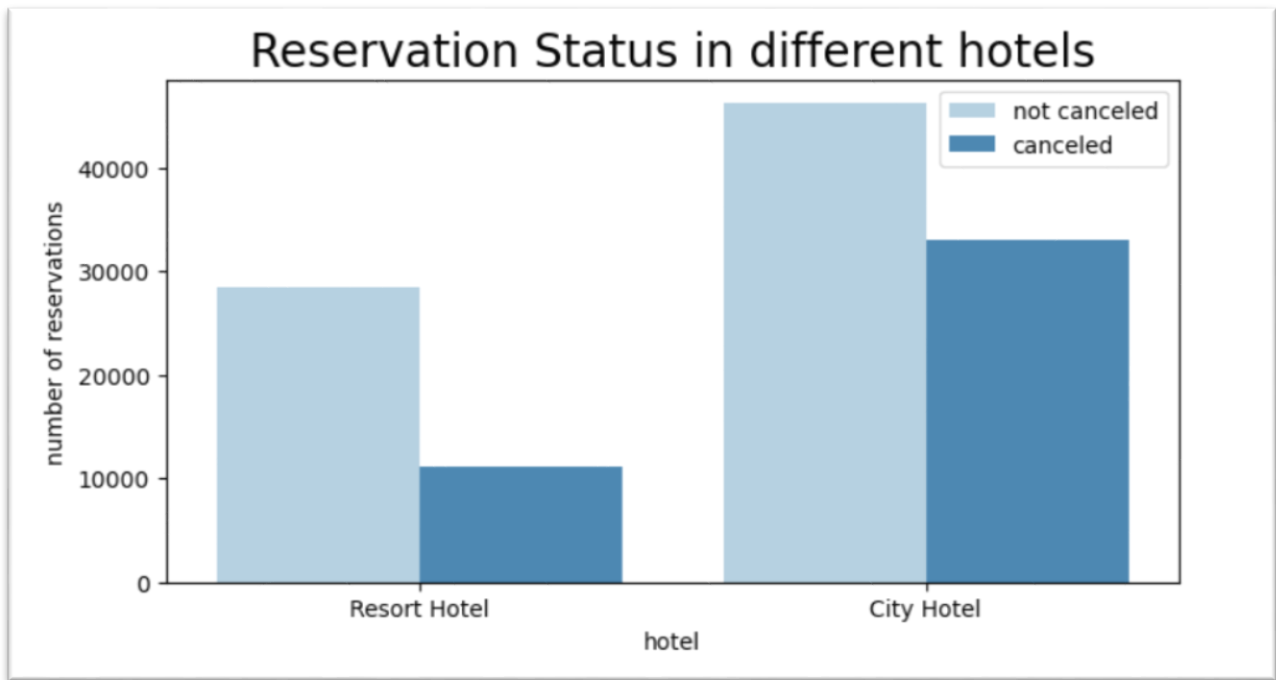
Hypothesis

1. More cancellations occur when prices are higher.
2. When there is a longer waiting list, customers tend to cancel more frequently.
3. The majority of clients are coming from offline travel agents to makes their reservations.

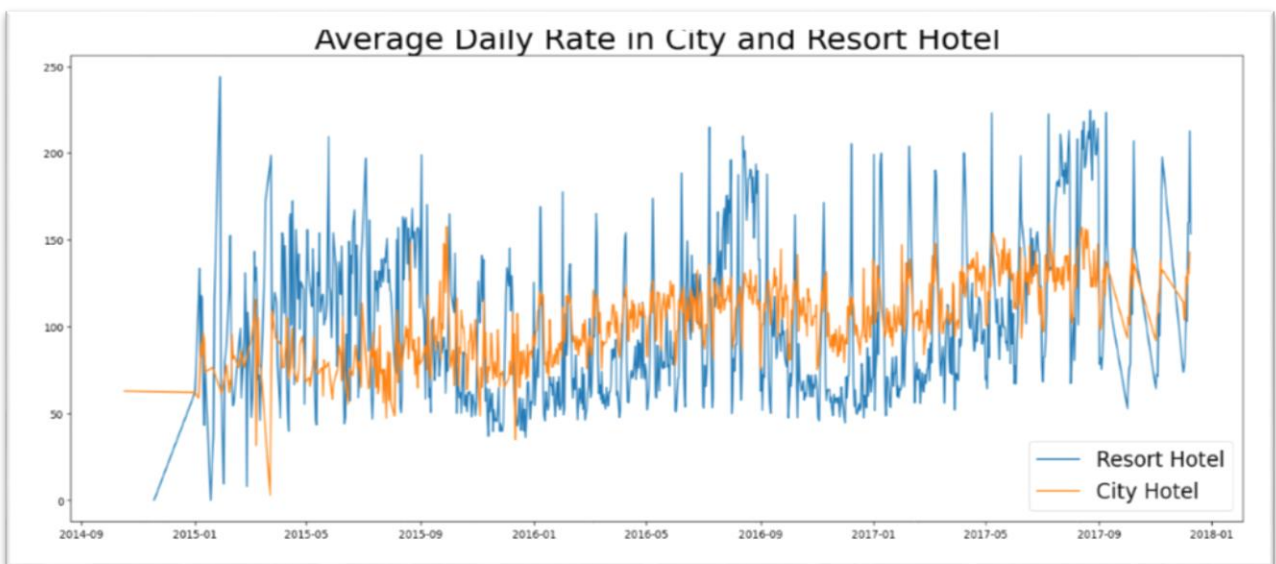
Analysis and Finding



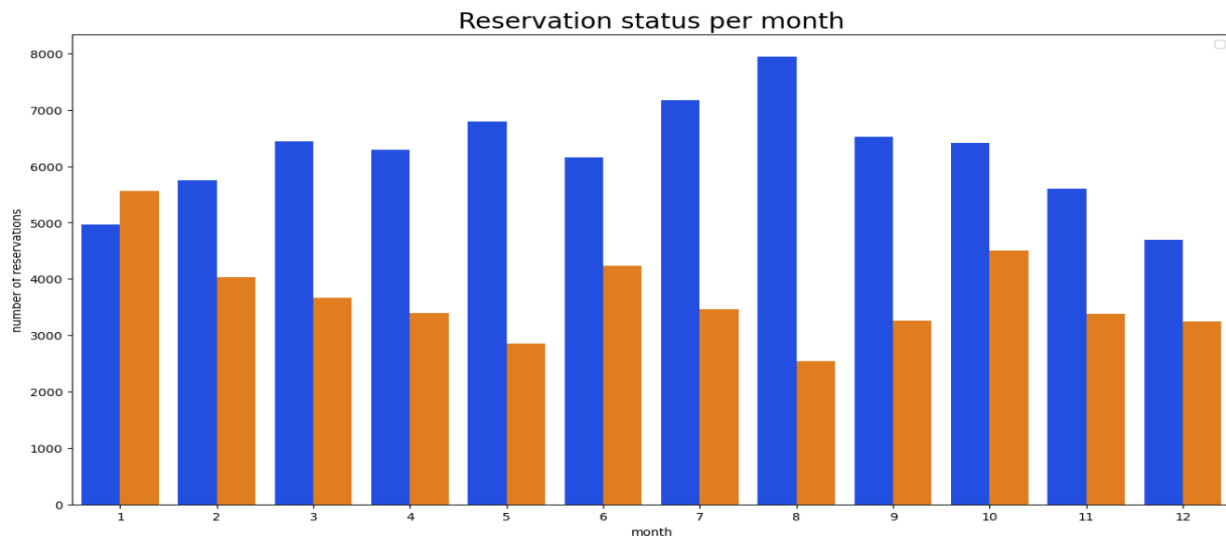
The accompanying bar graph shows the % of reservations that are canceled and those that are not. It is obvious that are still a significant number of reservations that have not been canceled. There are still 37% of clients who canceled their reservations, which has significant impact on the hotel's rating.



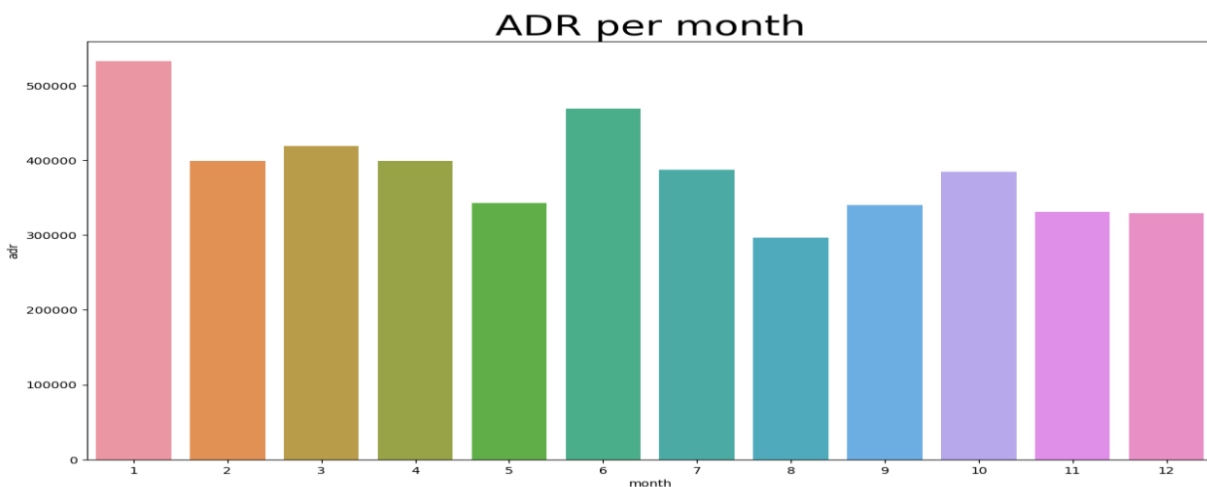
In comparison to resort hotels, city hotels have more booking. It's possible that resort hotels are more expensive than those in cities.



The line graph above shows that, on certain days, the average daily rate for a city hotel is less than that of a resort hotel, and on the other days, it is even less. It goes without saying that weekends and holidays may see a rise in resort hotel rates.



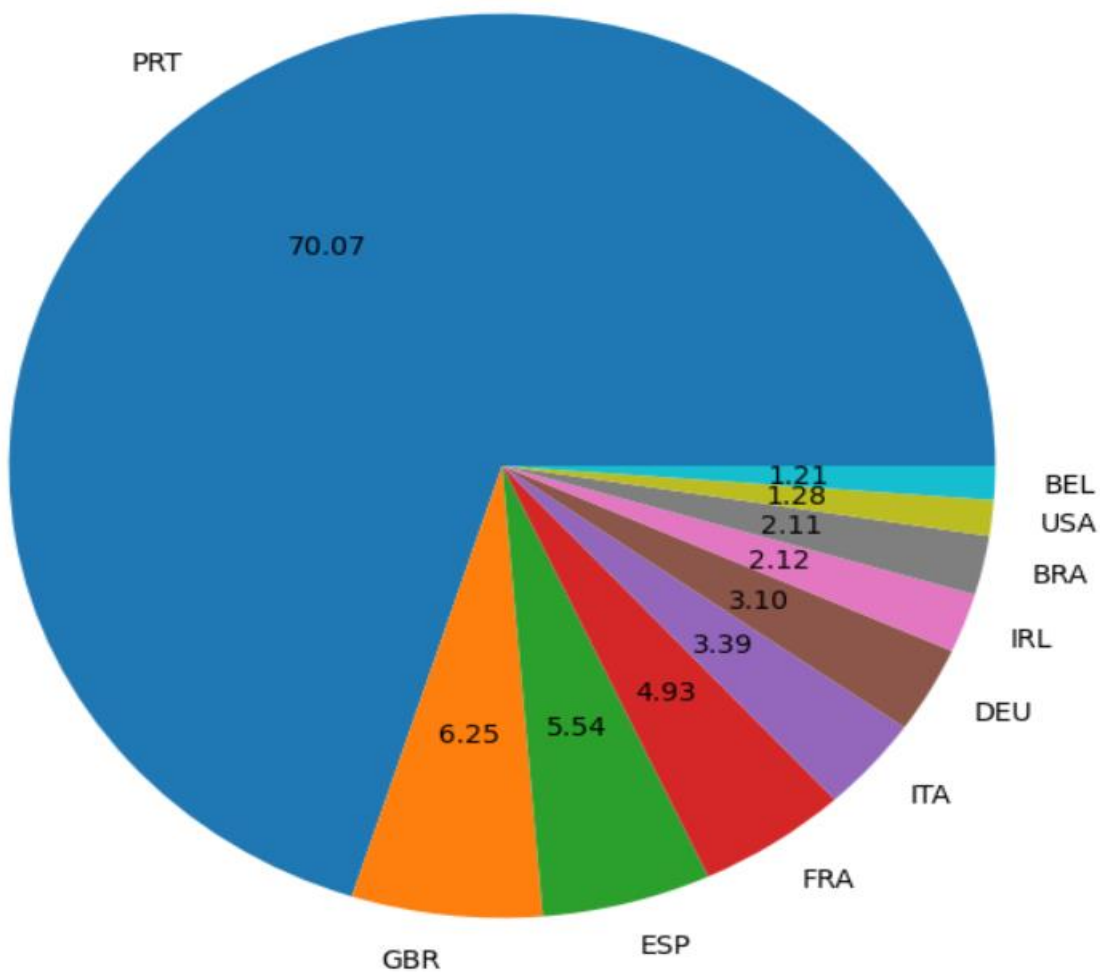
The above graph is used to analyze the months with the highest and lowest reservation levels according to reservation status. As we can see both the number of confirmed reservations and the number of canceled reservations are largest in the month of August, whereas January is the month with the most canceled reservations.



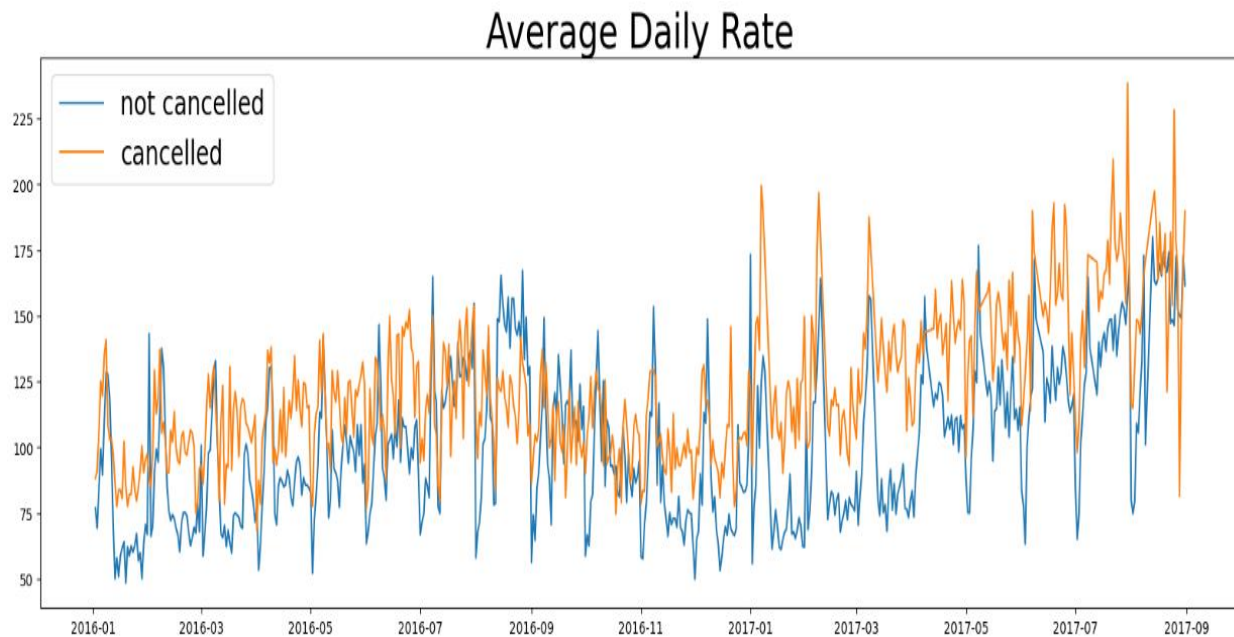
This bar garph demonstrates that cancellations are most common when prices are greatest and are least common when they are lowest. Therefore, the cost of the accomodations is solely responsible for the cancellations.

Let us see which country has highest reservation canceled. The top counry is Portugal with the highest number of cancellations.

Top 10 countries with reservation canceled



Lets check the area where he guest are visiting the hotels and making resrvations. Is it coming from Direct or Groups, Online or Offline Travel Agents? Around 465 of the clients come from Online travel agencies, where 27% come from Groups. Only 4% of the clients book hotels directlty by visiting them and making reservations.



As seen in the graph reservation canceled when the average daily rates is higher than when it is not canceled. It is clearly proves that all the above analysis , that the higher price leads to higher cancellations.

Suggestions

1. Cancellations rates rise as the price does. In order to prevent cancellation of reservations, hotels could work on their pricing and try to lower the rates specific hotels based on locations. They can also provide some discounts to the consumers.
2. As the ratio of the cancellations and not cancellations of the resort is higher in the resort hotel than the city hotels. So the cancellations of the resort should provide a reasonable discount on the room prices on weekends or on holidays.

3. In the month of January, hotels can start campaigns or marketing with a reasonable amount to increase their revenue as the cancellations is the highest in this month.
4. They can also increase the quality of their hotels and their services mainly in Portugal to reduce the cancellation rate.