

Business Problem

Hotels and resorts in the city have experienced high cancellation rates in recent years. Each hotels now faces a number of issues, including declining revenue and , less-than-ideal hotel rooms. Therefore, reducing the cancellation rate is the main goal of the hotel to improve the efficiency of revenue generation and the main goal of our in-depth business consulting to solve this problem.

The main topics of this report are the analysis of hotel reservation cancellations and other factors that do not affect their business and annual income.

Assumptions

1. No unusual event between 2015 and 2017 significantly affects the data used.
2. The data is still updated and can be used to effectively analyze the possible plans of the hotel .
3. The hotel has no unexpected negative effects when using the recommended techniques.
4. Hotels currently do not use any of the proposed solutions.
5. The biggest factor affecting revenue flow efficiency is order cancellations.
6. If you cancel, your room will be free for the duration of your reservation.
7. Customers make a hotel reservation in the same year they cancel.

Research Question

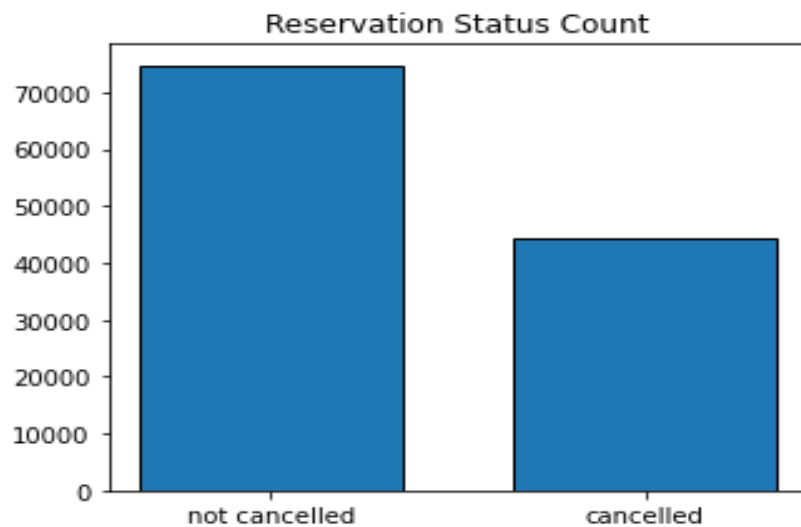
1. What variables affect cancellation of hotel reservations?
2. How can we improve the cancellation of hotel reservations?
3. How can we help hotels make pricing and advertising decisions?

Hypothesis

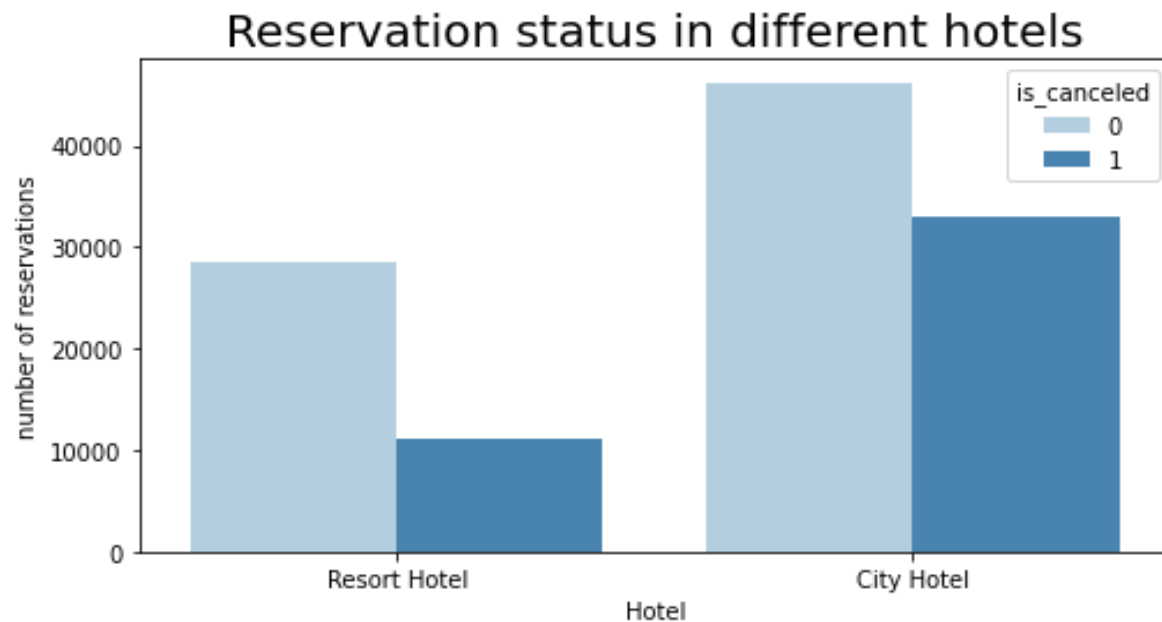
1. If prices are higher, there will be more cancellations.
2. If the waiting line is longer, customers cancel more often.
3. Most customers come from offline travel agencies to make their bookings.

Analysis and Findings

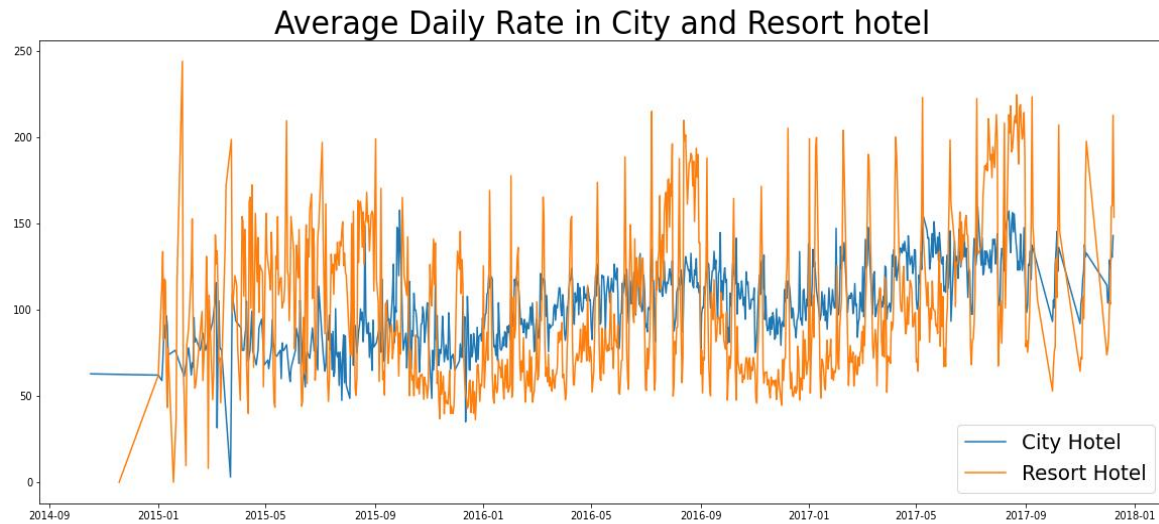
Cancelled -> 0.628653
Not cancelled -> 0.371347



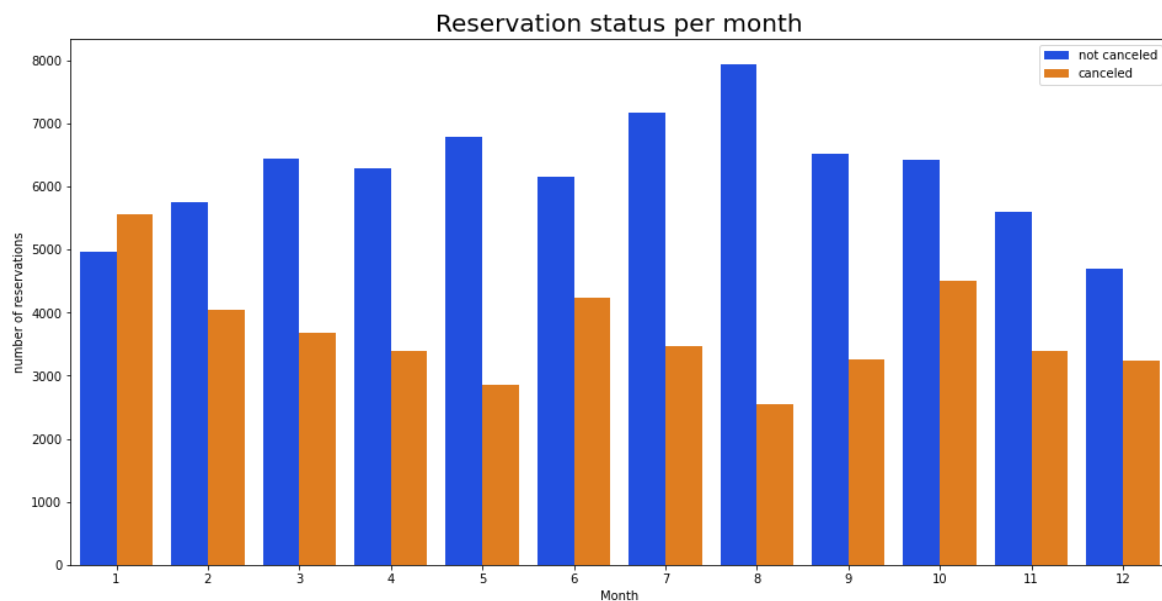
The above bar chart shows , cancellations and the percentage of reservations that were not canceled. Obviously, there are still a large number of reservations that have not been canceled. But still, 37% of customers continue to cancel reservations, which has a significant impact on hotel revenues.



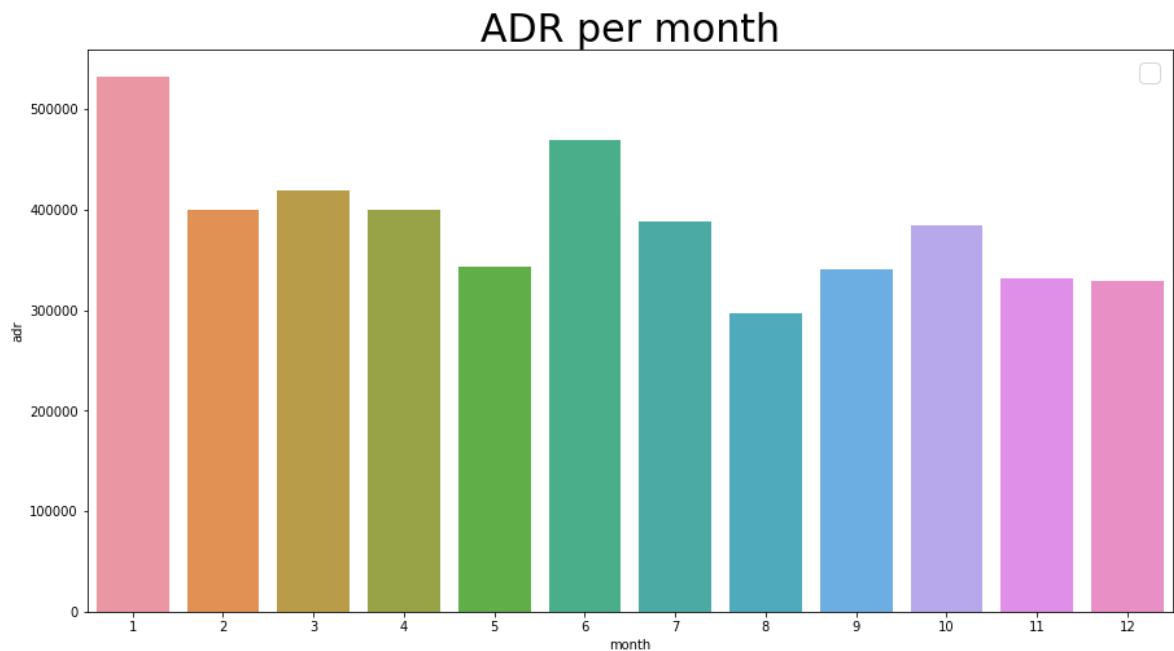
Compared to resort hotels, city hotels have more reservations. Resort hotels can be more expensive than city hotels.



The line graph above shows that on certain days the average daily price of a city hotel is lower than that of a resort hotel, while on other days it is even lower. It goes without saying that vacation hotel prices can go up on weekends and holidays.



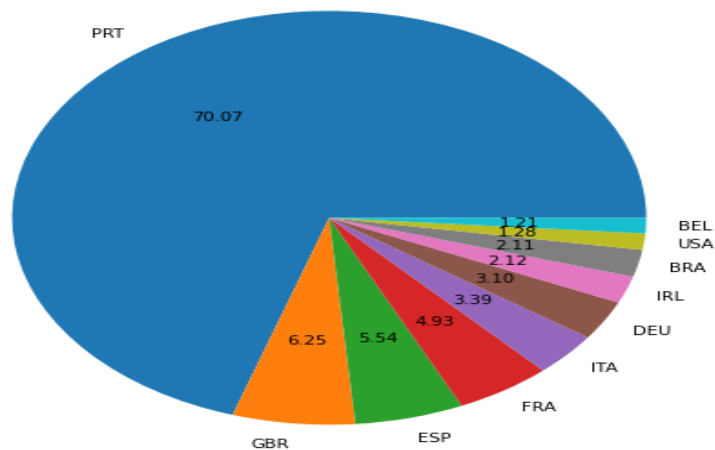
We created a grouped bar chart to analyze the months with the highest and lowest booking levels by booking status. As can be seen, the number of confirmed bookings and canceled bookings is the highest in August, while January has the highest number of cancellations.



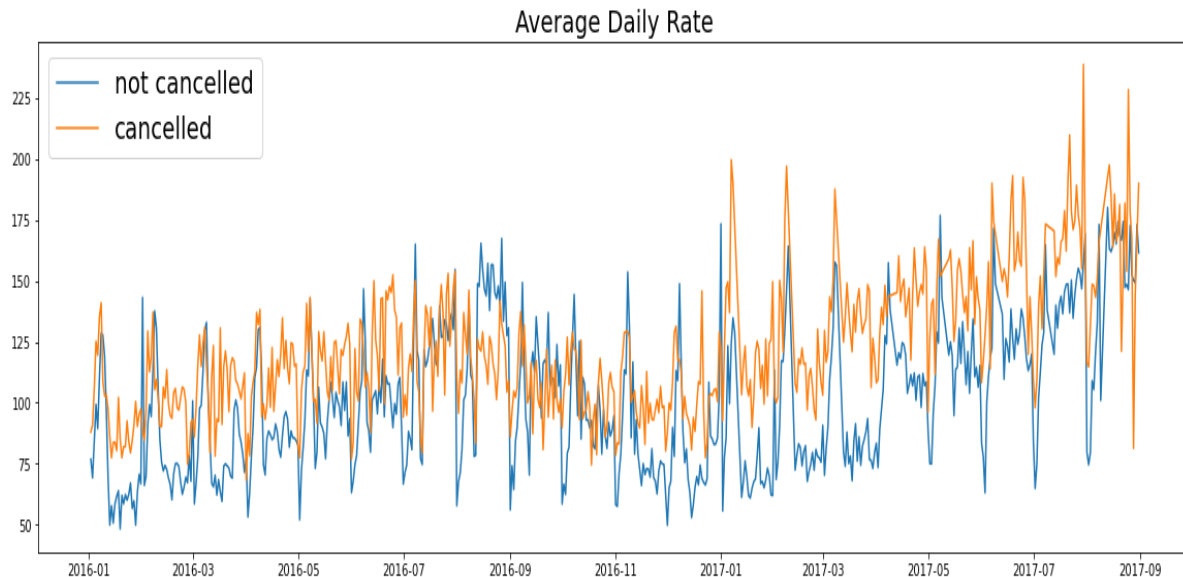
This bar chart shows that cancellations are most common when prices are at their highest and least common when they are at their lowest. Therefore, the cost of living in is only responsible for the cancellation.

Now let's see which country has the most cancellations. The largest country is Portugal with the most cancellations.

Top 10 countries with reservation cancelled



Let us examine the areas from where customers visit hotels and make reservations. Does it come directly or from groups, online or offline travel agencies? About 46% customers come from online travel agencies, while 27% come from groups. Only 4% of , customers book a hotel by visiting and booking directly with them.



As shown in the graph, bookings are canceled when the average daily rate is higher. This clearly proves all the above analysis that higher price leads to more cancellations.

Suggestion

1. Cancellation rates increase with price. To prevent cancellations, hotels could develop their own pricing strategies and try to lower certain hotel prices based on location. They can also offer some discounts to consumers.
2. As the ratio of cancellations and no cancellations of the resort hotel is higher as compared to city hotels. Therefore, hotels should offer a reasonable discount on room rates during weekends or holidays.
3. In January, hotels can start promotions or marketing with a reasonable amount to increase their revenue, because the highest cancellation rate is in this month.
4. They can also improve the quality of their hotels and services mainly in Portugal to reduce the cancellation rate.