



Reducing Hotel Booking Cancellations

Business Problem:

In recent years, City Hotel and Resort Hotel have experienced high cancellation rates. Each hotel is now grappling with a number of issues as a result, including reduced revenues and suboptimal room utilization. Consequently, decreasing cancellation rates is both hotels' primary objective in order to enhance their efficiency in revenue generation. Our goal is to provide comprehensive business recommendations to address this issue.

The focus of this report is the analysis of hotel booking cancellations and other factors that impact their operations and annual revenue generation.

 by Goutam Kuiri



Hotel Booking Cancellations: Key Assumptions and Insights

1 Assumptions

1. No unusual changes between 2015-2017
2. The data and information are still valid
3. No hidden problems with suggested ideas
4. Hotels haven't implemented these ideas yet
5. Cancellations impact revenue the most
6. Canceled rooms remain unoccupied
7. Customers reserve and cancel in the same year

2 Research Questions

1. What factors influence hotel booking cancellations?
2. How can we improve the cancellation process?
3. How can hotels get assistance with pricing and promotions?

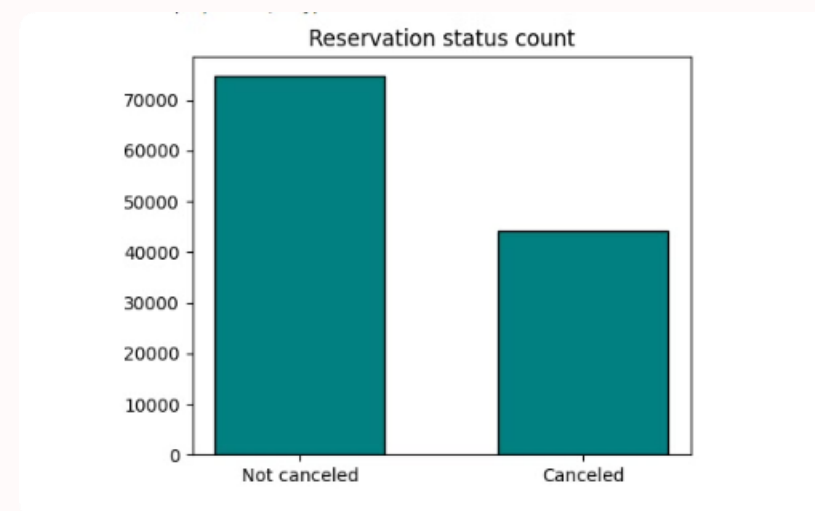
3 Hypotheses

1. More cancellations when prices are high
2. Cancellations likely if long waitlist
3. Most book through travel agents, not online



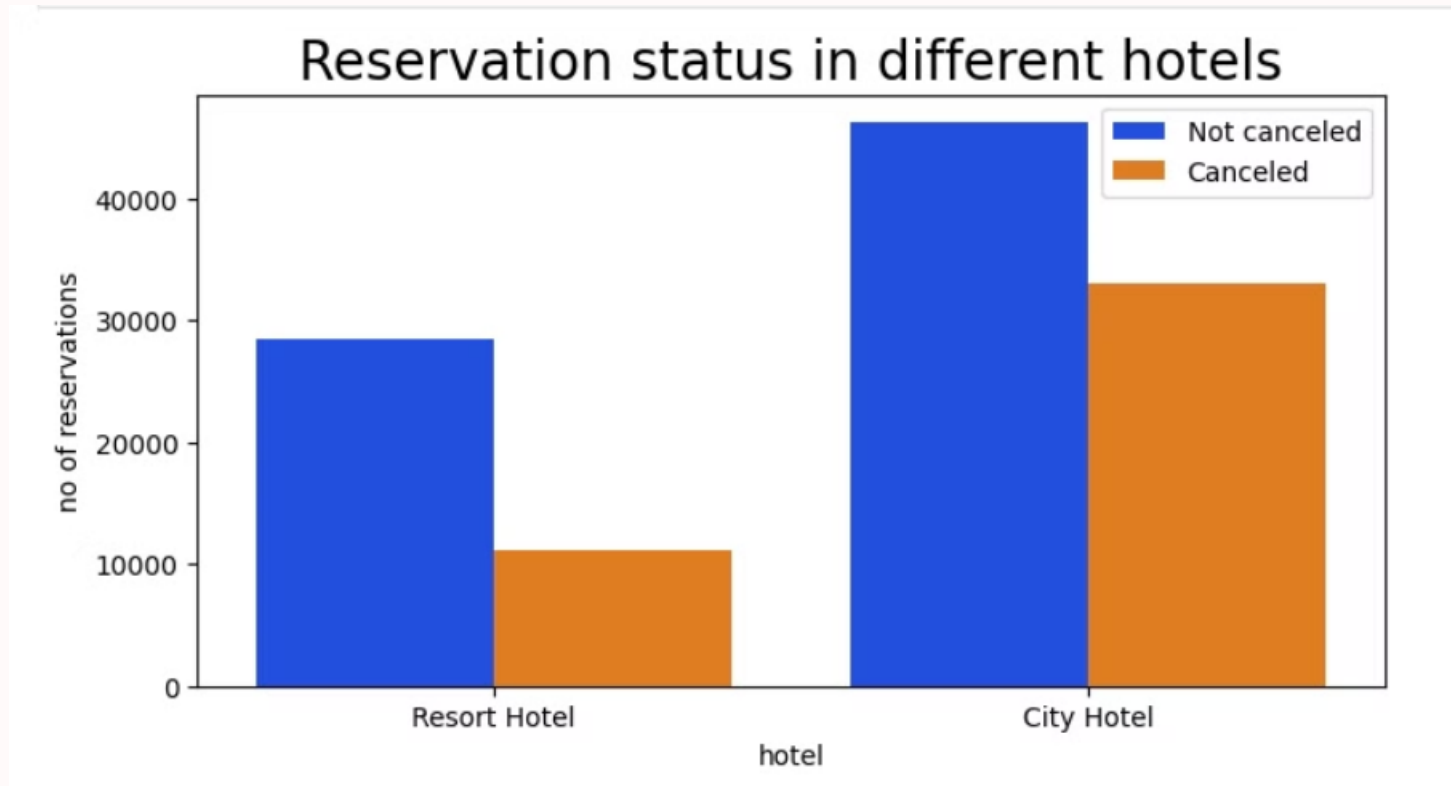
Data Analysis and Visualizations

Calculating the percentage of canceled and non-canceled bookings



We calculated the percentage of both canceled and non-canceled bookings based on the provided data. Our analysis reveals that **62.87%** of bookings remain **non-canceled**, while **37.13%** have been **canceled**. This indicates a substantial portion of reservations experiencing cancellation, highlighting the potential impact on hotel operations and revenue. Understanding these percentages allows for a deeper comprehension of booking trends and aids in strategic decision-making for hotel management.

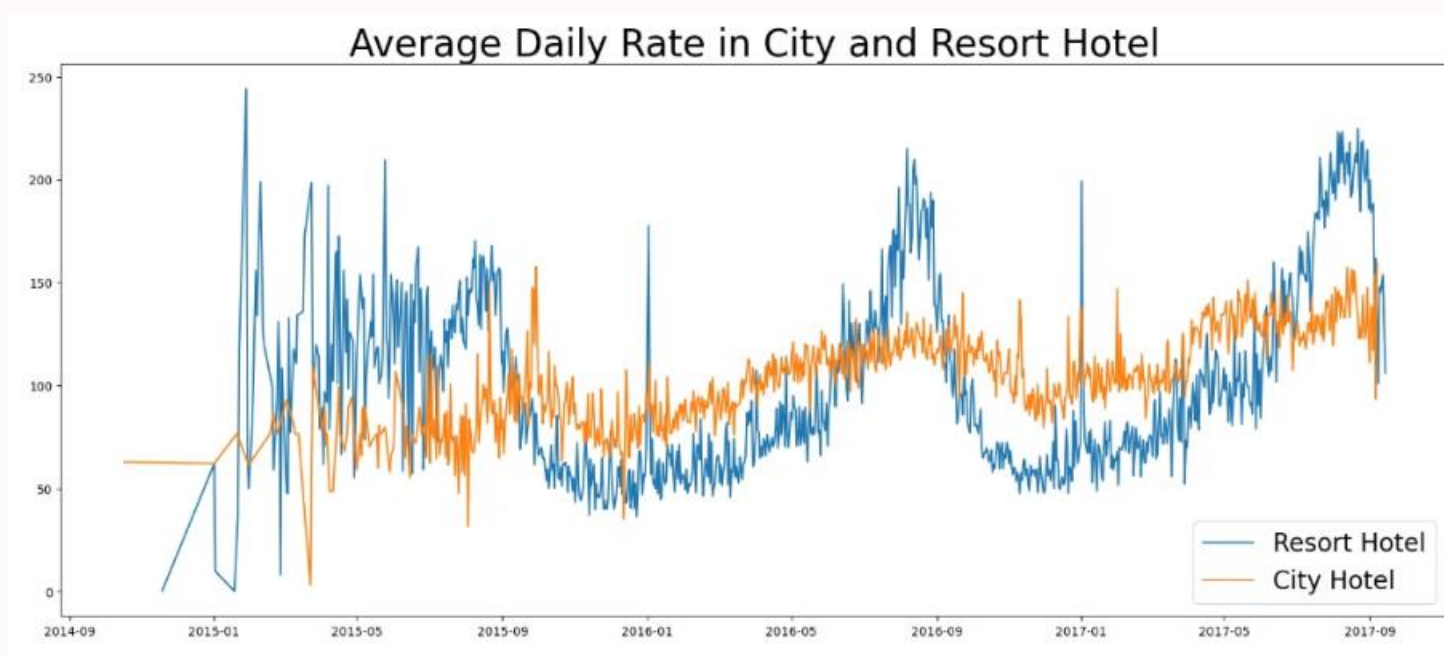
Visualize the Reservation status across different hotels



In comparison to city hotels, resort hotels have fewer bookings. It's possible that resort hotels are pricier than those in urban areas.

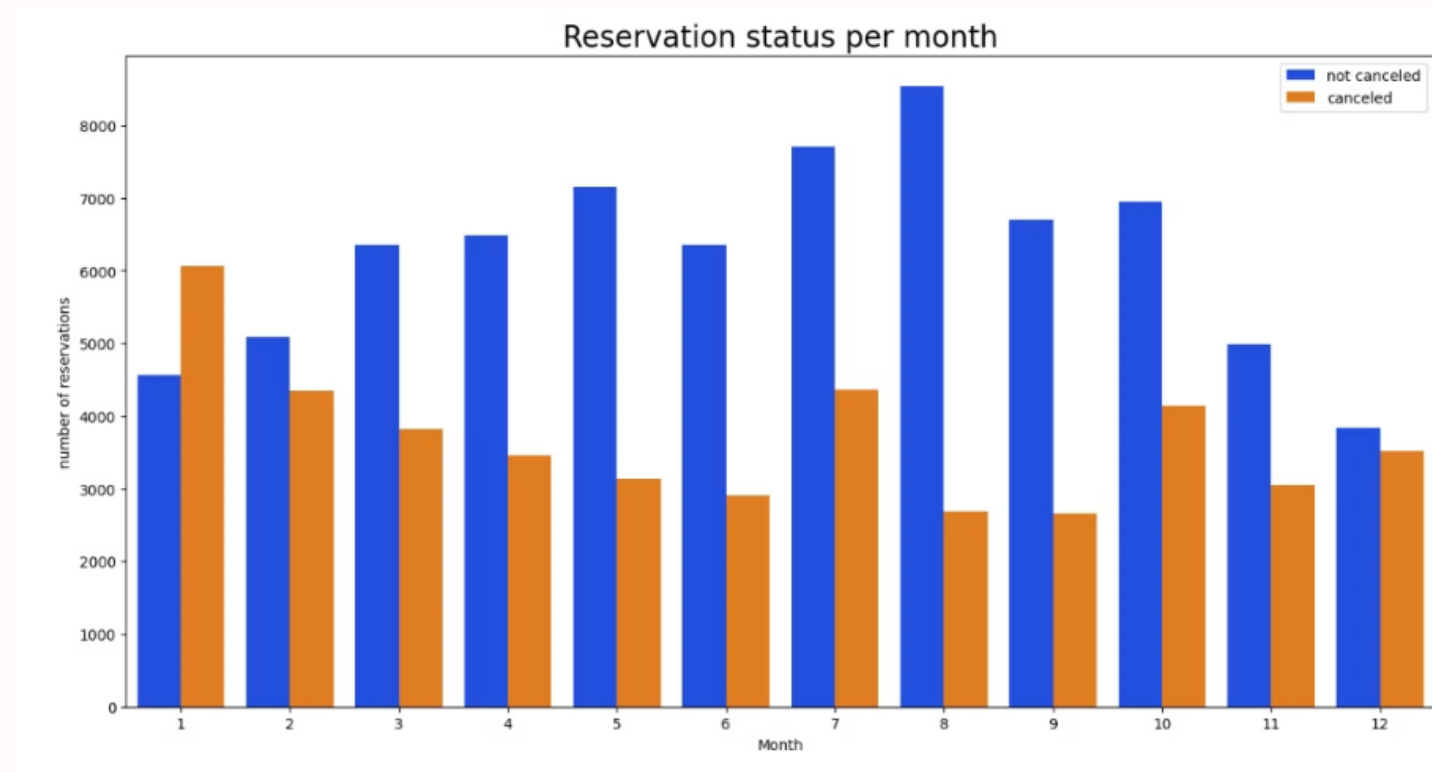
In **resort hotels**, most bookings, about **72%**, aren't canceled. However, around **27.9%** of reservations are getting canceled, which is still quite a sizable portion.

City hotels are facing a high cancellation rate, with **41.7%** of reservations getting canceled, while only **58.2%** are staying confirmed.



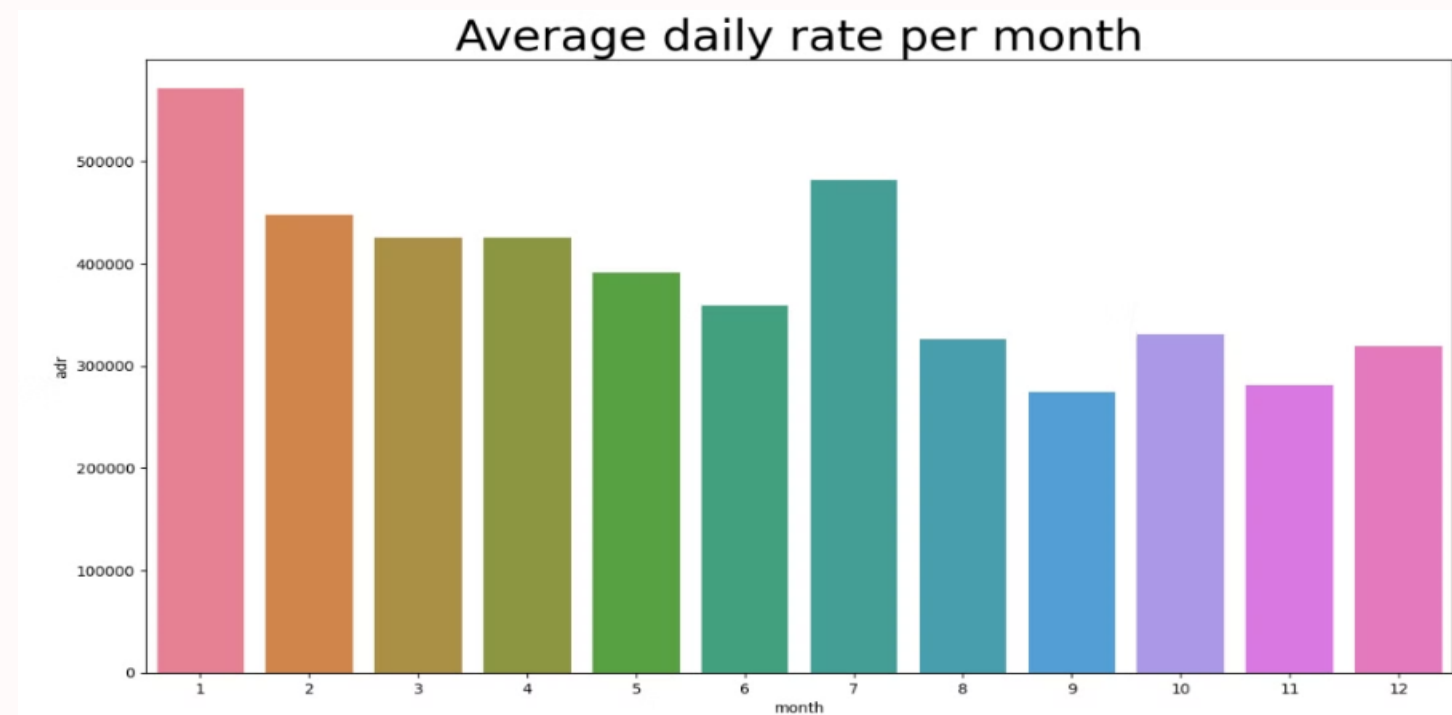
- The slide shows a visualization comparing the average daily rate (ADR) between city hotels and resort hotels over time.
- The orange line represents the ADR for city hotels, while the blue line represents the ADR for resort hotels.
- We can see that the lines intersect at various points, indicating that the price comparison between the two hotel types fluctuates over time.
- Generally, city hotel prices tend to be lower than resort hotel prices, except during busy periods like holidays and weekends when demand increases and prices rise.
- This supports our hypothesis that city hotel ADR is typically lower than resort hotel ADR, with some exceptions during peak travel times.

Determining the Reservation status per month



- January saw the highest rate of cancellations, while August had the lowest cancellation rate.
- August had the most reservations, while December and January had the fewest.
- These trends in reservation status and cancellations are important to understand seasonal patterns in demand.
- Knowing when peak and low seasons occur can help us optimize staffing, inventory, and other operational decisions.
- Analyzing these monthly fluctuations will allow us to better prepare for and respond to changes in reservation volume.

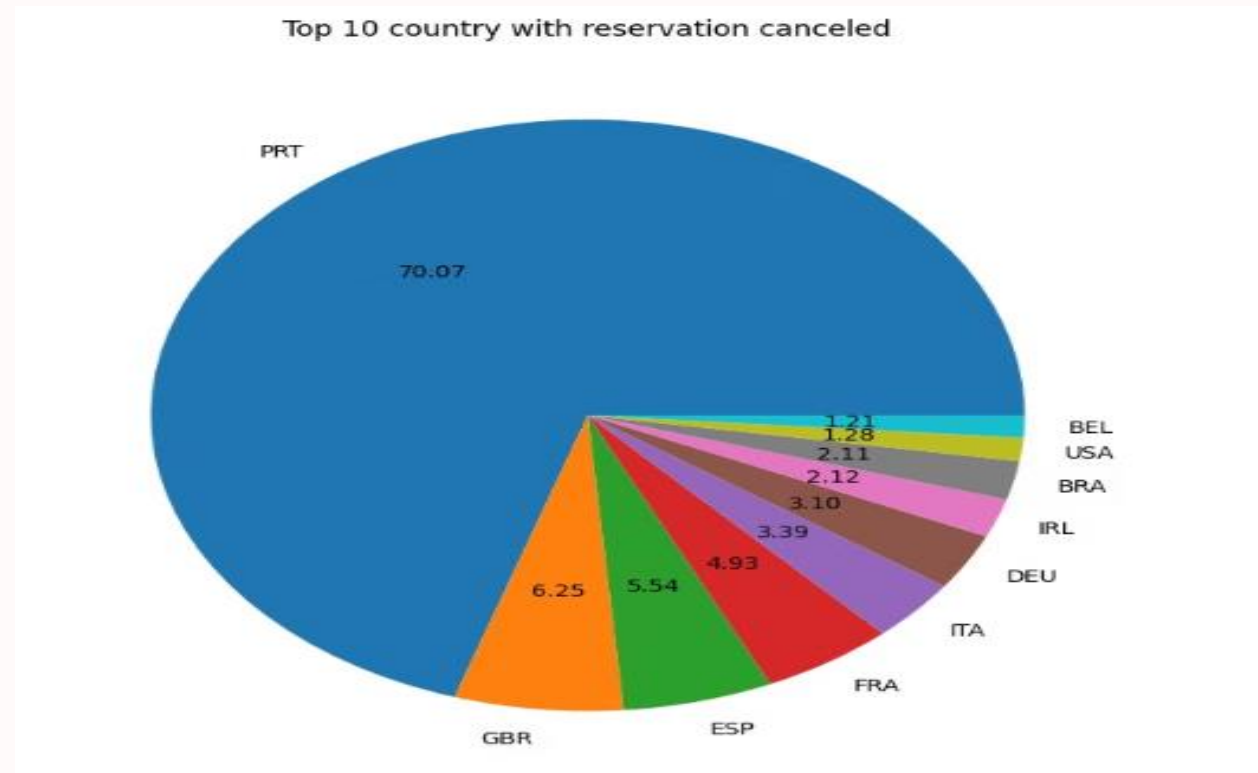
Calculated the average daily rate per month to assess price fluctuations in relation in relation to cancellations



The data analysis revealed that January had the highest cancellation rate and highest average daily rate, while August had the lowest cancellation rate and lower prices.

- August was the busiest month for bookings, while December and January were slower periods.
- There appears to be a clear relationship between cancellation rates and pricing - higher prices tend to coincide with increased cancellations, while lower prices correspond to decreased cancellation rates.
- This finding highlights the importance of pricing strategies in effectively managing reservation cancellations.
- The insights from this analysis can inform pricing decisions to balance occupancy, revenue, and cancellation rates.

Determining the cancellation percentage across various countries.



Portugal has the highest cancellation rate at 70.07%, significantly higher than the second highest rate of 6.25% in the United Kingdom.

- This stark difference suggests Portugal should consider enhancing its facilities, adjusting pricing strategies, offering more discounts, and running promotional campaigns to reduce the high cancellation rate.
- Improving the customer experience through upgraded amenities and better services can make stays more appealing, thereby reducing cancellations.
- Revisiting pricing models to be more competitive and attractive, coupled with targeted discounts and special offers, can incentivize more bookings and minimize cancellations.
- Effective marketing campaigns can further bolster these efforts by attracting a more committed customer base.
- By addressing these areas, Portugal can work towards aligning its cancellation rates more closely with other countries, stabilizing and potentially increasing its reservation rates.

Analyzing Market Segments

market_segment	
Online TA	56402
Offline TA/TO	24159
Groups	19806
Direct	12448
Corporate	5111
Complementary	734
Aviation	237

- Online TA is the largest segment with 56402 bookings. This suggests a strong presence and effectiveness of online travel agencies in driving reservations.
- Offline TA/TO is the second largest segment with 24159 bookings. This suggests a robust influence and effectiveness of traditional travel agencies and tour operators in driving reservations.
- The data shows the continued importance of both online and offline channels in the travel industry.

Analyzing Market Segments Proportionally

market_segment	
Online TA	0.474377
Offline TA/TO	0.203193
Groups	0.166581
Direct	0.104696
Corporate	0.042987
Complementary	0.006173
Aviation	0.001993

- Online TA constitutes 47.4% of the bookings, showing a strong reliance on online travel agencies for reservations.

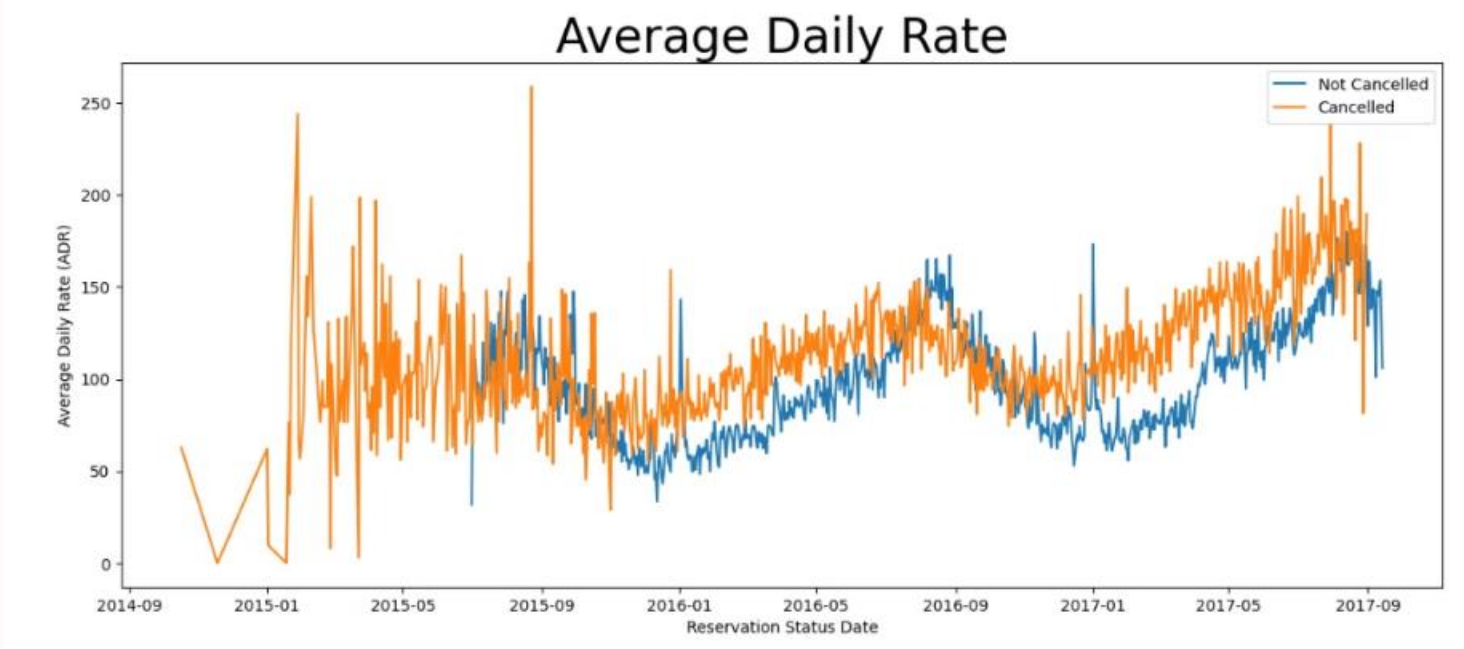
Analyzing Cancellation Rates by Market Segment

market_segment	
Online TA	0.469696
Groups	0.273985
Offline TA/TO	0.187466
Direct	0.043486
Corporate	0.022151
Complementary	0.002038
Aviation	0.001178

- Online TA constitutes 46.9% of the cancellations, indicating that a majority of cancellations come from online travel agencies.

Recommendations

- Address Online TA Cancellations: Since Online TA has the highest proportion of cancellations, consider reviewing and potentially tightening the cancellation policies associated with these bookings. Enhance customer engagement and support for online bookings to reduce cancellations.



The chart indicates that cancellations occur more frequently when the average daily rate is higher compared to when it is lower. This clearly supports the previous analysis, demonstrating that increased prices lead to a higher rate of cancellations.

HOTEL PRICE COMPARISON



Price Comparison

Conducted By: Phil Georges
Conducted: May 23, 2050

NAME	DESCRIPTION	QTY	PRICE 1 (per unit)	PRICE 2 (per unit)	PRICE 3 (per unit)
	Built with the best materials	200	\$20.40	\$20.30	\$20.20
d Pillow	Pillows specifically for sleeping	400	\$9.00	\$9.50	\$9.80
on et	For guests to keep warm	300	\$6.30	\$6.45	\$6.05

Pricing and Cancellation Relationship

1

High Prices, High Cancellations

Our findings suggest a clear relationship between cancellation rates and pricing dynamics - higher prices tend to coincide with increased cancellations, whereas lower prices correspond to decreased cancellation rates.

2

Pricing Strategies

Revisiting pricing models to make them more competitive and attractive, coupled with targeted discounts and special offers, can incentivize more bookings and minimize the likelihood of cancellations.

3

Promotional Campaigns

Effective marketing campaigns can further bolster these efforts by attracting a more committed customer base and reducing the high cancellation rate, particularly in markets like Portugal.

Booking Channel Insights

Online Travel Agencies

Online TA is the largest segment with 56,402 bookings, constituting 47.4% of the total. However, Online TA also accounts for 46.9% of the cancellations, indicating a need to review and potentially tighten the cancellation policies associated with these bookings.

Traditional Travel Agencies

Offline TA/TO is the second largest segment with 24,159 bookings, suggesting a robust influence and effectiveness of traditional travel agencies and tour operators in driving reservations.

Customer Engagement

Enhancing customer engagement and support for online bookings could help reduce cancellations from this dominant channel.

Improving Resort Hotel Performance

1 Competitive Pricing

Resort hotels should offer reasonable discounts on room prices during weekends or holidays to reduce the higher ratio of cancellations to non-cancellations compared to city hotels.

3 Service Enhancements

Enhancing the quality of hotels and services, particularly in Portugal, could help decrease the high cancellation rate observed in that market.

2 Targeted Campaigns

In January, when hotels experience the highest cancellation rates, they can initiate marketing campaigns with reasonable budgets to boost revenue.



Optimizing City Hotel Performance



Competitive Pricing

City hotels should consider adjusting their pricing strategies and lowering rates for specific locations to reduce the impact of higher prices on cancellation rates.



Targeted Discounts

Offering discounts to customers could be beneficial in incentivizing bookings and minimizing the likelihood of cancellations.



Effective Marketing

Implementing effective marketing campaigns can attract a more committed customer base and further support efforts to reduce cancellations.

Enhancing the Customer Experience

1

Upgraded Amenities

Improving the customer experience through upgraded amenities and better services can make stays more appealing, thereby reducing cancellations.

2

Competitive Pricing

Revisiting pricing models to make them more competitive and attractive can incentivize more bookings and minimize the likelihood of cancellations.

3

Targeted Discounts

Offering targeted discounts and special offers can further enhance the appeal of hotel stays and reduce the risk of cancellations.

Addressing High Cancellation Rates in Portugal

Facility Upgrades

With the highest cancellation rate at 70.07%, Portugal should consider enhancing its hotel facilities to make stays more appealing and reduce cancellations.

Pricing Strategies

Adjusting pricing strategies, such as offering more discounts, can help make hotel stays in Portugal more attractive and reduce the high cancellation rate.

Promotional Campaigns

Running targeted promotional campaigns can further bolster efforts to attract a more committed customer base and stabilize reservation rates in Portugal.

Customer Experience

Improving the overall customer experience through better services and amenities can also contribute to reducing the high cancellation rate in Portugal.

Leveraging Data Insights

Insight	Recommendation
Cancellation rates increase as prices rise	Adjust pricing strategies and offer discounts to reduce cancellations
Resort hotels have higher cancellation-to-non-cancellation ratio	Offer reasonable discounts on room prices during weekends or holidays
January has the highest cancellation rates	Initiate marketing campaigns with reasonable budgets to boost revenue
Portugal has the highest cancellation rate	Enhance facilities, adjust pricing, offer discounts, and run promotional campaigns

5 Basics of Hotel Revenue Management



1. Perceived value pricing

Revenue managers should understand **value based pricing**.



2. Right Distribution Channels

Determine the best **distribution strategy** and channels to drive revenue.



3. Direct Bookings & Website Focus

Main focus should be to drive **direct bookings** via your official website.



4. Forecasting

Forecasting for **rate setting** and **budgeting** to plan future pricing.



5. Right Decision Making

Make knowledge based **decisions** from accurate data.

Suggestions

1. Cancellation rates increase as prices rise. To reduce reservation cancellations, hotels should consider adjusting their pricing strategies and lowering rates for specific locations. Additionally, offering discounts to customers could be beneficial.
2. The ratio of cancellations to non-cancellations is higher for resort hotels compared to city hotels. Therefore, resort hotels should offer reasonable discounts on room prices during weekends or holidays.
3. In January, hotels can initiate marketing campaigns with reasonable budgets to boost revenue, as this month experiences the highest cancellation rates.
4. Enhancing the quality of hotels and services, particularly in Portugal, could help decrease the cancellation rate.