

Customer Segmentation Analysis

Project: Hotel Booking Customer Segmentation Analysis

Segmentation Criteria

1. **Demographics:** Country of origin
2. **Booking Behavior:** Lead time, average daily rate (ADR), booking month, meal plan, market segment
3. **Engagement with Hotel:** Cancellation status, repeated guest status, type of hotel (City or Resort)

Segmentation Analysis

Segment 1: High Cancellation Risk Customers

- **Demographics:** Primarily from countries like PRT (Portugal), GBR (United Kingdom), ESP (Spain), FRA (France), and ITA (Italy).
- **Booking Behavior:**
 - Longer lead time (more days between booking and arrival).
 - Higher ADR values, indicating that higher prices contribute to increased cancellations.
 - Bookings made during off-peak months like January and peak summer months like August show increased cancellations.
 - Market Segment: High cancellations from the "Groups" and "Online Travel Agents (TA)" segments.
 - Meal Plan: The BB (Bed & Breakfast) meal plan has a higher cancellation rate, especially among group bookings.
- **Engagement with Hotel:**
 - Higher likelihood of canceling bookings in City hotels compared to Resort hotels.

Recommendations:

- **Offer flexible pricing** for bookings with a long lead time, especially for higher ADR ranges.
- **Targeted promotions** for Group and Online TA segments during months with high cancellations (e.g., discounts in January and August).
- **Consider revising meal plan offerings**, especially for BB in group bookings, to reduce the cancellation rate.

Segment 2: Low Cancellation Risk Loyal Customers

- **Demographics:** Evenly spread across various countries, including some top countries like GBR and FRA.

- **Booking Behavior:**
 - Shorter lead times (book closer to the check-in date).
 - Moderate ADR values, showing price sensitivity.
 - Bookings are more frequent in months with lower ADR, showing price-conscious behavior.
 - Market Segment: Preferential bookings from "Direct" and "Corporate" segments.
 - Meal Plan: Less likely to cancel when opting for FB (Full Board) and HB (Half Board) meal plans.
- **Engagement with Hotel:**
 - Higher likelihood of booking at Resort hotels compared to City hotels.
 - Often repeated guests, showing higher satisfaction and loyalty.

Recommendations:

- **Create loyalty programs** to encourage repeat bookings from these customers, especially during peak seasons.
- **Offer incentives** like discounted FB and HB meal plans to increase booking retention.
- **Maintain personalized communication** to enhance customer loyalty, especially for Corporate and Direct booking segments.

Segment 3: Price-Sensitive Occasional Guests

- **Demographics:** Mostly from diverse countries with moderate representation across various nationalities.
- **Booking Behavior:**
 - Moderate lead times, typically not last-minute bookings.
 - Prefer lower ADR bookings, showing high sensitivity to price fluctuations.
 - Market Segment: Frequent bookings from "Transient" market segment, indicating casual or occasional visits.
 - Meal Plan: Prefer room-only or minimal meal plans, indicating a preference for budget stays.
- **Engagement with Hotel:**
 - Moderate likelihood of booking at City hotels due to perceived value for money.
 - Less likely to be repeated guests but could be converted with the right incentives.

Recommendations:

- **Offer promotions during off-peak seasons** for lower ADR options to attract this segment.
- **Provide bundled offers** for stays (e.g., room + minimal meal) to increase booking retention.
- **Target marketing efforts** towards price-sensitive individuals, highlighting deals and value-oriented packages.

Conclusion

The analysis of hotel bookings and cancellations reveals several key patterns. Both city and resort hotels show high cancellations during periods of higher Average Daily Rates (ADR), indicating that increased prices are a major factor in cancellations. Specifically, January sees the highest cancellations in city hotels, while June and July have the most cancellations for resort hotels.

Market segment analysis shows that cancellations are particularly high for the "Groups" segment across both hotel types, with the "Online TA" segment also contributing significantly. Additionally, in PRT (Portugal), almost 80% of cancellations occur, severely affecting hotel revenues. The "Groups" market segment has the highest cancellation rates in PRT, and the Bed + Breakfast (BB) meal plan is often linked to these cancellations.

Furthermore, the analysis suggests that longer lead times are associated with higher cancellation rates, especially in the "Groups" market segment. This highlights the importance of adjusting pricing strategies, market targeting, and booking policies to reduce cancellations.

Overall, the project concludes that high ADR, specific market segments (especially Groups), meal plans, and longer lead times are key contributors to hotel cancellations. By addressing these factors, hotels can reduce cancellations and improve revenue stability.