

How do guest reviews reflect Hotel performance?

BAIT 580A

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Background and Problem Statement

We utilized the booking.com hotel review dataset to find patterns in the positive and negative sentiments and any evidence of seasonality.

Why? - 85% of travellers read up to 10 online reviews. If the reviews aren't good, there is very little chance that the person will visit your hotel. Hotels can't cut corners anymore because their online ratings will suffer as a result. ([Hospitality Net, 2016](#)).

Analysis Plan:

1. What are the key factors that improve guests' satisfaction at hotels across Europe?
2. Which segment of the chain hotels are impacted worse by the negative reviews?
3. Is there any identified seasonality (monthly or quarterly) in review positivity?



Improving hotel guest experience with NLP



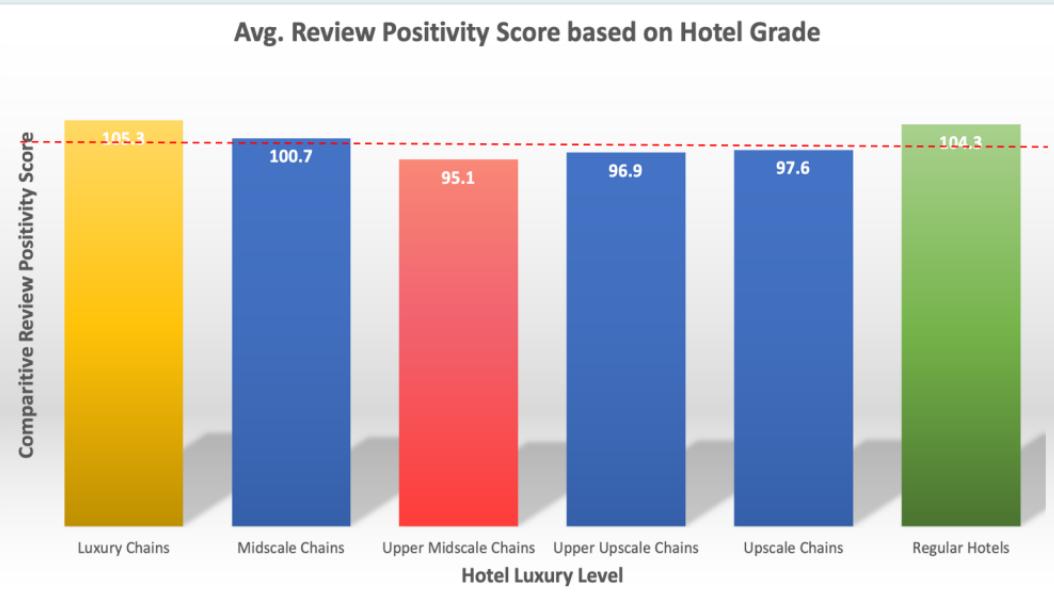
Main factors for dissatisfaction: staff issues, breakfast, bed comfortable level, hygiene factors



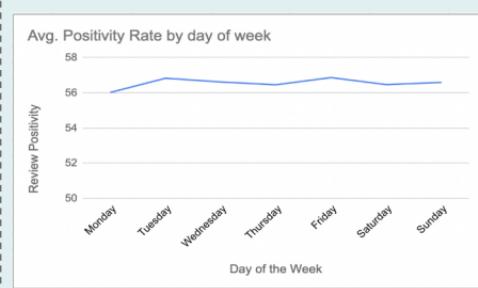
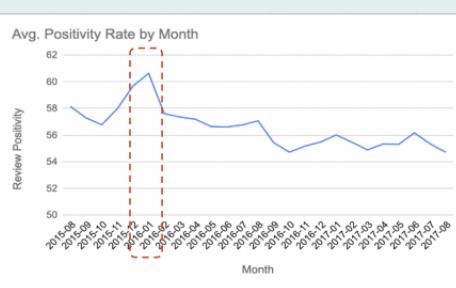
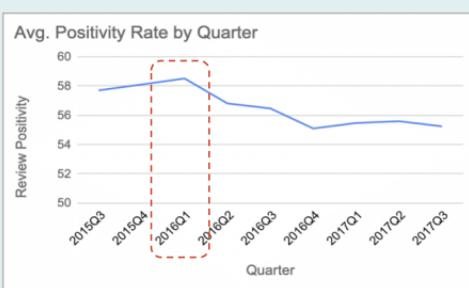
Some overlapping factors that influence hotel guest experience are - staff issues, hygiene, and food quality. Hotels should focus on these areas to improve customer satisfaction.

Impact of Hotels' Grade on Customers' Reviews

- Luxury hotels outperformed others in terms of lower customer complaints.
- Regular (independent) hotels are the runner up.
- Upper Midscale chain hotels have the worst performance from customers' perspective.



Detecting seasonality in review sentiments



Total timeline span is from 2015 Aug to 2017 Aug -> good dimension to explore. We analyzed trends by month, quarter, and DOW as below:

- **YoY change:** The positivity rate declined by ca. 5.20% YoY, comparing 2016 Q1 vs. 2017 Q1. Specifically Jan 2016 is the highest month for positivity
- Next step: To uncover the specific key drivers for the dip

We did not find much difference in the weekends vs. weekdays when analysing review positivity by day of week (just a slight relative dip on Mondays!)

Conclusion

Mining the hotel reviews for the positive and negative experiences helps us narrow down the problem areas for the hotels to focus on:

- Focus areas - staffing, hygiene, and food quality are main areas to focus for hotels to dial-up the customer satisfaction
- Segments - brand names / chains adds little competitiveness for guest's satisfaction
- Seasonality - YoY dip in positivity rate identified in the first quarter, there's no evidence of weekday vs. weekend trends on average for positivity rate

Appendix (1/2)

Screenshot from booking.com - review from guest perspective

Booking.com

Stays Flights Flight + Hotel Car rentals Attractions

Coronavirus (COVID-19) support

Home > All resorts > Canada > Vancouver Island > Port Renfrew > Trailhead Resort (Resort Resorts Resorts Resorts)

We Price Match

Info & prices Facilities

Search
Destination/property name: Port Renfrew
Check-in date: Monday, March 14, 2022
Check-out date: Wednesday, March 16, 2022
2-night stay
2 adults · 0 children · 1 room

Resort Trailhead Resort ★★★★
17268 Parkinson Road, V0S 1K0 Port Renfrew, C



Kirkdoherty Canada

Two-Bedroom Cottage
4 nights - December 2021
Family

Reviewed: December 31, 2021
We thoroughly enjoyed our stay and will be looking to book again in the future. 9.0

☺ - The cabin was clean and very spacious and comfortable. Staff was helpful and accommodating. Communication before and during our stay was efficient and effective. When an issue arose (frozen pipes during an extended cold snap) staff were very helpful and quickly relocated us to rooms with water and quite generously refunded the last night of our stay. **POSITIVE COMMENTS**

☺ - The cabin's kitchen could do with a bit of a restock on utensils, glasses, etc. **NEGATIVE COMMENTS**

Helpful Not helpful

Maxine Canada

Economy Cabin with Shared Bathroom
2 nights - October 2021
Couple

Reviewed: October 16, 2021
Awesome 9.0

☺ - Cute, clean, cozy **POSITIVE COMMENTS**

☺ - Washrooms outdoors, but we knew this **NEGATIVE COMMENTS**

Helpful Not helpful

Appendix (2/2)

Average customer ratings by hotel chain segment:

