Optimizing Airbnb Property Listings: Key Insights and Strategies for Enhanced Guest Satisfaction in 2019 Using Textual Data

Executive Summary

In 2019, Airbnb listings in the United States received the most extensive guest feedback, revealing valuable insights into traveler preferences and areas for improvement. Analysis of guest reviews showed that travelers appreciated private features such as kitchens, bathrooms, and bedrooms, often describing their experiences using words like pretty, exciting, and cool. However, negative sentiments pointed to issues related to hygiene, broken equipment, and slow host responses. Most positive reviews came from listings priced below three hundred dollars per night, with strong appeal to families and groups. To remain competitive, Airbnb hosts should focus on improving communication, ensuring cleanliness using eco-friendly cleaning products, and maintaining property conditions. Offering competitive pricing, special discounts, and additional services can further attract cost-conscious guests. Strong reputations and positive guest reviews, especially for Superhosts, significantly influence booking decisions. Overall, guest satisfaction is driven by cleanliness, communication, comfort, and trust, all of which are essential for long-term success.

Textual Analysis

Airbnb listing in the US in 2019 received myriad information than the rest of the years, indicating consumer preference and areas of improvements. In Figure 1, the Correlation Network exhibits 20 description tokens or words with the greatest uniqueness score (TF-IDF) along with their surrounding review tokens showing both negative and positive sentiments. For instance, the token "kitchen" is correlated with mostly positive review tokens in which the client found them "pretty", "appreciated", "exciting", and "cool" after visiting. It shows that the host is proficient in delivering quality and promises to exceed the expectation as like or beyond the description.

Figure 1: Correlation Network

Some descriptions also like to come together as shown, including "private", "bathroom", and "bed", indicating specific needs of arrangement or services, from which it appears that the visitors would not like to share the bathroom or bedroom and prioritize privacy in both areas. If privacy is highly considered, then more can be done to customize the experience, they might have found the private room or place "greeted", "excited", "rich", "cute", and even a "paradise" and "attractions". Another thought is that privacy can be for an individual, friends, or families that are catered to the prospects.

Those tokens also come with some negative reviews from the customers. They might also have found the spaces or beds a bit "weird", "bad", "sick", and "sad", which caused them "trouble(s)" in fitting in the environment, made them filed "complain(s)", or posted a "warning" to not bother the listing. For bathroom matters, it seemingly signals the tap is not working, lack of hygiene, unchanged towels, or no hot water. On the other hand, for beds or spaces, it should emphasize spotlessness, decoration, air quality, noise, neighborhood, or communication with the host. This imposes the fundamental care for the host towards equipment quality, atmospheric cleanness, and privacy from noise interruption.
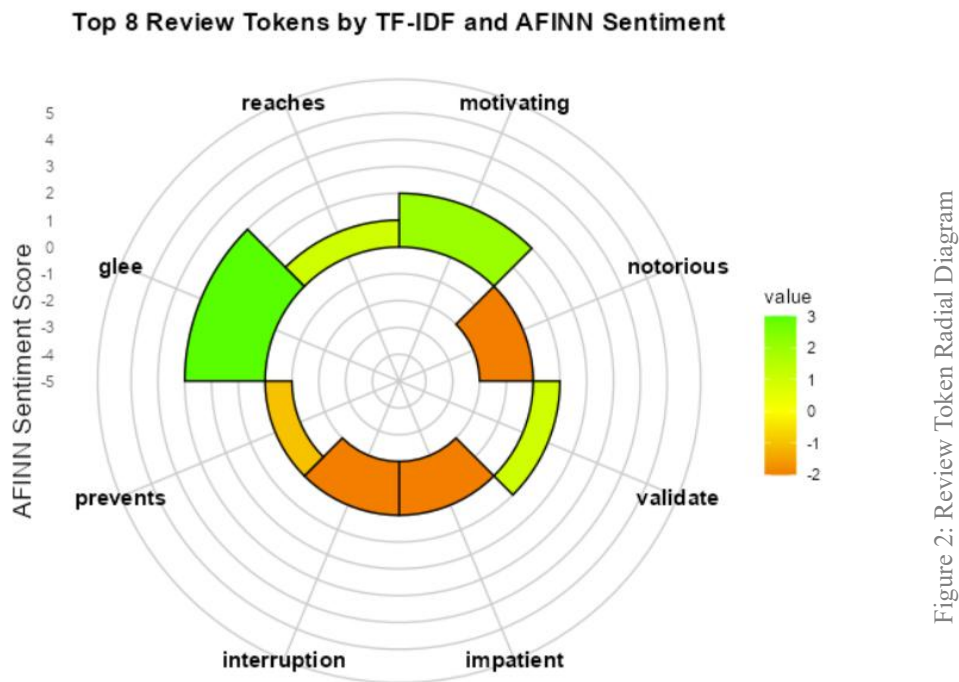
Figure 2: Review Token Radial Diagram

Correspondingly, the Radial Diagram (Figure 2) concentrates on the most unique review tokens constructive to the booking and trip experience of the listing, measured by the AFINN sentiment strength score from -5 (highly negative) to 5 (high positive) by the color area. There are four positive ("glee", "motivating", "reaches", and "validate") and negative ("notorious", "impatient", "interruption", and "prevents") tokens derived, but the graph depicts greater positive score of reviews. The biggest green review tokens are "glee" and "motivating", which are similar to "delight", "joy", "enjoy", and "exciting" that revolve around the description token of "apartment" and "private"; appealing appreciation, satisfaction, and potentially reaching loyalty within those concepts. The other two low green-scored token are "reaches" and "validate"; they associate with accessibility and time efficiency as well as trustworthiness or truthful as what described in the posts, respectively, earning the host greater credibility and friendliness of their communication and services.

In contrast, there are three strong negative ones with equal sentiment score of -2 "notorious", "impatient", and "interruption", while "prevents" is at -1. These words imply significant loopholes in the criteria of Host Behavior, Property Condition, and Environmental Factor, which found in many studies of Airbnb listing and host roles by Özen, Güneren, and Akpınar (2023) and Wang and Wang (2022). The word "notorious" and "impatient" are supposedly directed to the behavior and communication of the host regarding their blunt and audacious response when clients looked for assistance or emergency with finding the location, fixing some malfunctioning amenities, agreeing on payment terms, or asking for refunds. These are also supported by the findings of Ozanne and Prayag (2022) in addressing the responsiveness and reputation of Airbnb hosts.

In addition, "notorious", "interruption", and "prevents" can also impart with the environment aspect in the sense that the place did not give a feeling of protection, safety, convenience, or fitting in, making it hard for some people to adapt or acknowledge. Consistently, such keywords are also compelled in the study of Airbnb description and neighborhood perception by Ho, Chen, and Li (2023). These also apply to the conditions of the property that the descriptions did not match the on-site experience or equipment and amenities did not work to the way they are supposed to, causing "interruption" and "notorious" client responses. The word "prevents" has the least negative strength, it might also identify difficulties clients face when trying to select payment methods, which "prevents" them from booking the place on time or challenges in commuting to the destination by transportation or weather. Ding, Choo, Ng, Ng, and Song (2021) also supports these statements in their machine learning models of measuring Airbnb accommodation satisfaction.
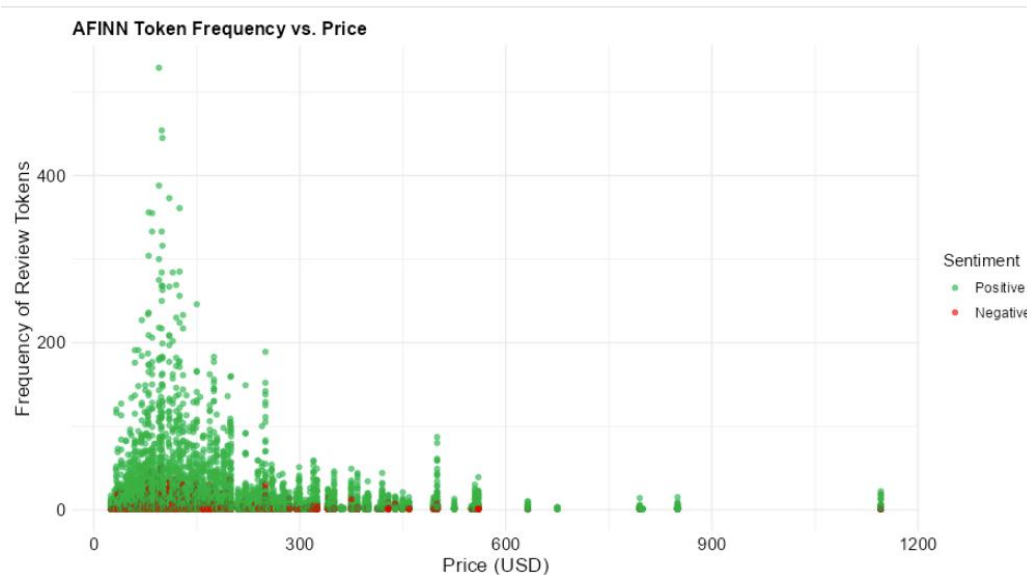

Figure 3: Review Token Scatter Plot

The scatter chart in Figure 3 encapsulates where the reviews we have been analyzing are fro reveals that most review tokens in the US market are positive and highly concentrated in customer segments with the budget below $300 per night, suggesting an overall high positive score in Bing sentiment. This nightly priced property range incorporates the most diverse reviews for further improvement of customer experience as well based on the above exemplified tokens by Afinn sentiment measurements. Constructively, the bubble chart in Figure 4 clearly defines the types of properties by accommodate capacity and their values in terms of nightly price and deposits to respond to the scale of customer experience improvement. The informed budget range dominantly houses couples and families or groups of friends (2 to over 8 people) as entire homes or apartments and private rooms, as stressed by the Correlation Network on relating "private" description tokens where they frequently earn Airbnb's revenue and contain rich feedback for Airbnb's reputation and loyalty by host and property representation.
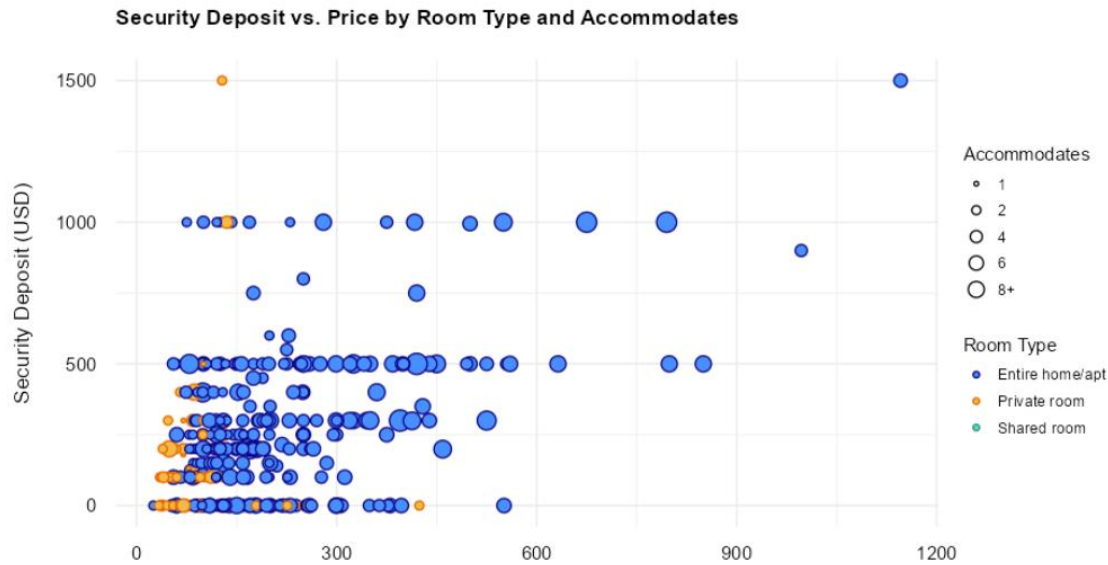
Security Deposit vs. Price by Room Type and Accommodates

What the two charts also show is that the bookings for family and friend accommodations are becoming trendy and demanding, and people are clustered at around $500 of nightly price and security deposit; implying they are price-conscious for acceptable reasons to deposit or even engage in premiums; though, entire apartments and homes offer a lot in service. This aligns with the research of Toader, Negruşa, Bode, and Rus (2021) that it underscores the importance of transparent and reasonable pricing strategies to attract budget-conscious travelers, especially in between price form $300 to $500. Another aspect is that the entire home category is shown to be dominant is that people would like access to amenities, like kitchen and laundry for the comfort and convenience of their travel aside from privacy, which is also supported by Tafesse and Tariq (2025). Not just price sensitivity, if referred to the scatter chart within that price range, there are abundant positive reviews about the host or place to validate guests' decision behaviors; presenting that visitors also look for trust and reputation to make their stay decisions, and such accumulation of good reviews often exist in the label for Superhost in Airbnb for their consistent and outstanding service performance. Li and Tsai (2022) confirms that it is the rich information about the listing in the communities and social media in the form of information quality about the description, reviews, and host branding, which positively impacts the appeal to book.

Business Recommendations

1. Enhance Host Communication and Responsiveness

Effective communication is pivotal in shaping positive guest experiences, which hosts should prioritize timely and proactive interactions to address guest inquiries and concerns. The analysis indicates that prompt responses and clear information contribute significantly to guest satisfaction and trust.

- Implement automated messaging systems to provide immediate responses to common inquiries.

- Develop comprehensive welcome guides detailing property amenities, house rules, and local attractions.

- Schedule regular check-ins during guest stays to address any issues promptly.

- Train hosts in effective communication strategies to handle guest interactions professionally.

2. Prioritize Cleanliness and Property Maintenance

Cleanliness remains a top priority for guests when choosing accommodations. The result compels that guests frequently mention cleanliness in their reviews, highlighting its impact on their overall satisfaction. Maintaining high cleanliness standards not only enhances guest satisfaction but also positively influences reviews and ratings

- Establish a detailed cleaning checklist covering all areas of the property, including high-touch surfaces like doorknobs and remote controls.

- Schedule regular deep-cleaning sessions, especially during high-occupancy periods, to ensure thorough sanitation.

- Use high-quality, eco-friendly cleaning products that are proven to eliminate bacteria, viruses, and allergens effectively, while also ensuring the property maintains a pleasant, fresh scent that enhances the overall guest experience and aligns with growing preferences for sustainable practices.

- Conduct routine inspections to identify and address maintenance issues promptly, ensuring all amenities are in working order.

3. Optimize Pricing Strategies for Competitive Advantage

Strategic pricing is essential to attract budget-conscious travelers while maximizing occupancy rates. Offering competitive rates and value-added services can influence booking decisions as guests are more likely to book properties that provide perceived value for money.

- Analyze local market trends to set competitive pricing that reflects the value offered.

- Offer discounts for early bookings or extended stays to encourage reservations.

- Bundle amenities or services, such as free parking or complimentary breakfast, to enhance the value proposition.

- Regularly review and adjust pricing based on occupancy rates and guest feedback to remain competitive.

4. Build Trust Through Reputation and Positive Reviews

A strong reputation significantly influences guest booking decisions since properties managed by hosts with numerous positive reviews or "Superhost" status tend to attract more bookings, as guests associate these indicators with reliability and quality service.

- Encourage satisfied guests to leave reviews by providing exceptional service.

- Respond to reviews professionally, addressing any concerns raised.

- Highlight positive reviews and ratings in property listings to build credibility.

- Maintain consistency in service quality to uphold and enhance reputation.

Airbnb listings in 2019 highlights several key factors that influence guest satisfaction and booking decisions. Effective communication, cleanliness, property maintenance, and competitive pricing are essential for attracting and retaining guests. Additionally, building a strong reputation through positive reviews and Superhost status is critical in establishing trust and credibility with potential guests. The insights derived from

the review tokens and sentiment analysis provide clear action points for hosts to enhance their offerings, from addressing privacy concerns to ensuring consistent quality in amenities. By focusing on these areas, hosts can not only meet but exceed guest expectations, leading to improved ratings, increased bookings, and long-term success. In a highly competitive market, prioritizing these elements will allow hosts to differentiate themselves and foster loyal customer relationships, ultimately contributing to sustained growth and profitability in the Airbnb ecosystem.

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Appendix

Figure A1: Textual Description Analysis – US 2019