

Airbnb Listings Description Text Analysis Report

Executive summary

Analyzing Airbnb listing descriptions through text mining revealed user preferences for concise descriptions and English language dominance. Top listing locations were identified for targeted marketing. User interest in amenities, walkability, location details, and specific features like coffee machines and metro stations were uncovered. By highlighting these aspects in search filters, suggesting complementary amenities, and encouraging hosts to showcase unique features, Airbnb can optimize listings for user preferences, potentially leading to increased bookings.

Visualization insights

Word Cloud: Larger words like "walk," "bedroom," "bed," and "kitchen" dominate, highlighting essential aspects emphasized by hosts. (See Figure 1)

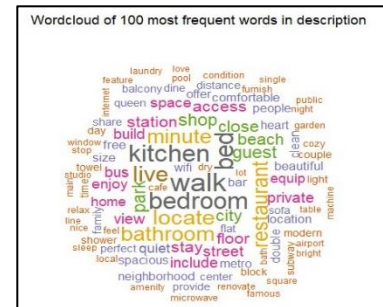


Figure 1

Stacked Bar Chart by Country (Top 5): This chart visualizes the importance of the top 10 words across leading listing locations (US, Turkey, Canada, Spain, Australia). We can see how word

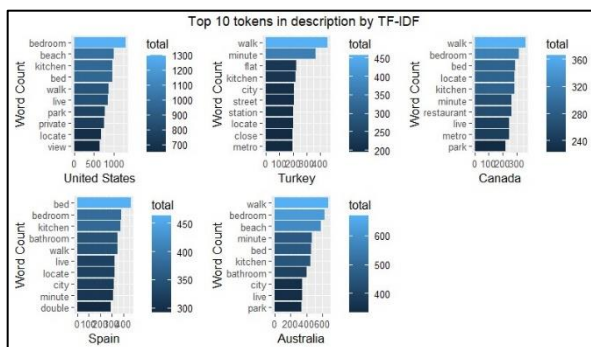


Figure 2

emphasis might differ – "beach" is prominent in coastal regions, while "walk" is significant everywhere. (See Figure 2)

Bigram Network Graph: Lines connect frequently used two-word phrases (e.g.,

"walking distance," "bedroom size"). Thicker lines represent stronger connections, suggesting hosts often describe listings using these related terms to showcase desired amenities and features.

(See Figure 3)

Filtering options allow you to focus on specific topics, token ranges, countries, and adjust the word cloud size. This comprehensive view empowers data-driven decision-making for Airbnb listing optimization.

Key findings and business insight

Hosts favor brief descriptions highlighting the importance of clear and succinct communication in listing content. English dominates listings (80%), underlining its crucial role in user interface and communication across the platform. Focusing on English translation and support for other prominent languages could enhance user experience for a wider audience. The analysis identified the United States, Turkey, Canada, Spain, and Australia as top listing locations, representing 68% of the total. Targeted marketing campaigns in these regions can be tailored based on user preferences identified through further analysis of specific terms within the descriptions.

Analysis revealed user interest in amenities (kitchen, walkability), location details ("walk," "bedroom"), and specific features (coffee machine, metro station) highlighted through TF-IDF and bigram analysis. Highlighting these aspects in search filters, suggesting complementary amenities (coffee shops near listings), and encouraging hosts to showcase unique features can improve user experience and searchability. Topic Modeling with LDA identified three key themes- Amenities & Atmosphere, Location & Convenience, and Essentials & Accessibility. By encouraging hosts to showcase unique amenities and highlighting accessibility features in relevant listings, Airbnb can cater to a wider range of user needs.