

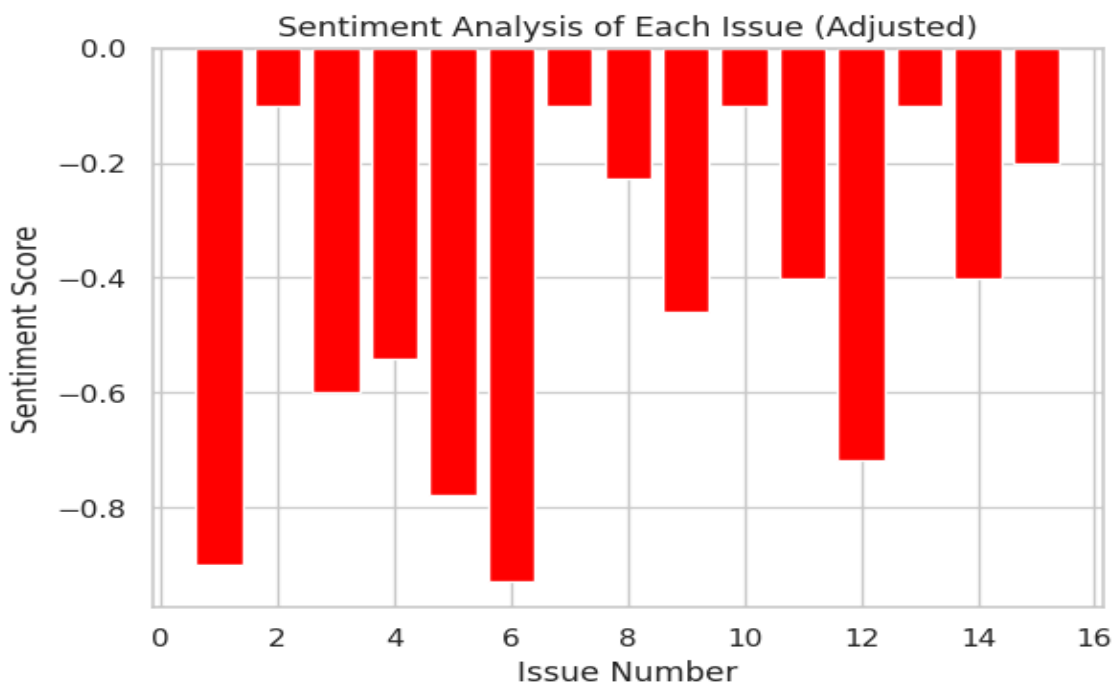
Enhancement of Insight Reporting through AI Document Analysis

As part of my role as a Community Insights Specialist Candidate at Standing on Giants, I have conducted in-depth Text Analytics using machine learning techniques on Airbnb's community issues data. The purpose of this analysis encompasses sentiment analysis and clustering analysis, both of which provide valuable insights into customer emotions and group similar concerns, respectively.

Sentiment Analysis:

In this analysis, I employed sentiment analysis to extract the emotional tone from community discussions. The goal was to quantify the negativity associated with specific issues raised within the Airbnb community. The resulting numerical values allow for a nuanced understanding, enabling a more detailed categorization of customer sentiments from extremely negative to extremely positive.

The applications of such sentiment analysis are extensive. For instance, it enables the crafting of communication strategies based on user feedback tones. Additionally, by monitoring trends in negative sentiments, potential issues can be predicted and addressed proactively, maintaining a positive community environment. This analysis provides the team with a comprehensive grasp of customer sentiments, allowing for a tailored and swift response to highly dissatisfied customers.



Clustering Analysis:

Cluster analysis was applied to group similar opinions or concerns within customer feedback. This categorization aids in structuring and summarizing issues in a more organized manner. The clusters were created based on the similarity of keywords, resulting in three distinct groups:

Cluster 1: Seeking Advice on Guest Management

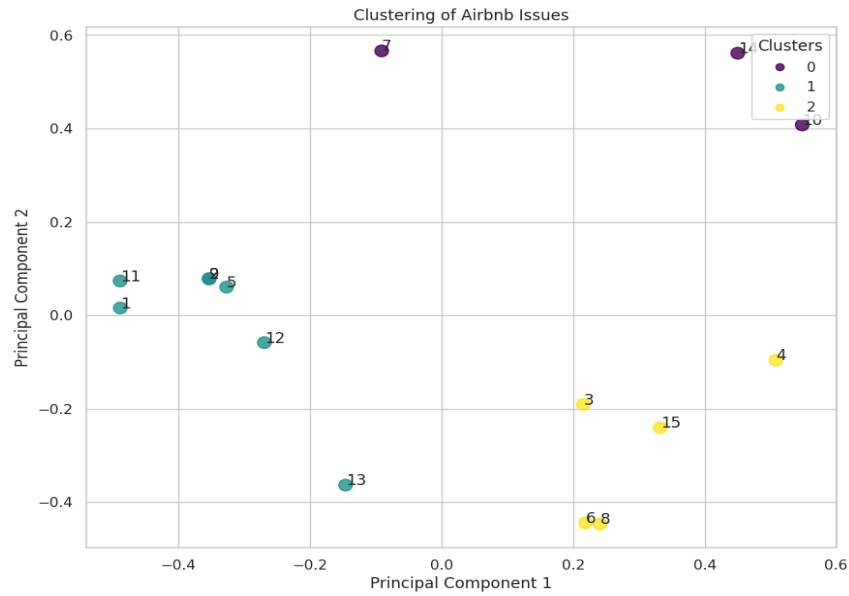
- Hosts consistently seek advice on managing guests who pose ongoing challenges.
- Topics suggest guidelines for hosts, especially new ones, in various aspects of guest management.

Cluster 2: Expression of Issues and Concerns

- Hosts express a variety of problems and concerns, including guests disregarding rules, pet-related issues, concerns about a surge in refund requests, and considerations for leaving negative feedback.
- The theme revolves around hosts expressing diverse issues and seeking solutions.

Cluster 3: Unpleasant Experiences and Refund Requests

- Hosts within this cluster share experiences related to uncomfortable situations, such as unauthorized gatherings or negative guest behavior.
- Substantial refund requests (e.g., 50%) are highlighted, expressing concerns about challenging and distressing guest situations, particularly those leading to refund demands.



Cluster 1 Characteristics:

Top Keywords:
['advice', 'constantly', 'handling', 'seeks']

Original Issues:

- Hosts seek advice on handling guests who constantly
- A new host seeks advice on when to reach out to
- A host seeks advice on handling a

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Cluster 2 Characteristics:

Top Keywords:
['express', 'issues', 'leaving', 'notice']

Original Issues:

- Hosts express
- Hosts are facing issues with guests disregarding
- Hosts deal with guests bringing pets despite
- Hosts face challenges with guests breaking
- Hosts express concern about a surge in guests filing
- Hosts discuss whether leaving a
- Some hosts notice a decline in guest behavior, with an

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Cluster 3 Characteristics:

Top Keywords:
['50', 'complains', 'demands', 'disturbing', 'faces']

Original Issues:

- A host shares a disturbing experience where a
- A new host faces a "no-show"
- A host complains about a guest who gave negative
- A host wonders if they should mark a guest down
- A host faces demands for a 50% refund from

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Conclusion:

This analysis has effectively segmented customer emotions and concerns within the Airbnb community, providing a clear grouping of key topics.

Sentiment analysis offers a quantitative evaluation of negative issues, aiding decision-making and guiding communication strategies. Sensitivity to shifts in user emotions is anticipated to play a crucial role in maintaining a positive community environment.

Cluster analysis groups issues by topic, facilitating a clear understanding and management of themes. The clustering results contribute to identifying key concerns and needs faced by hosts, guiding improvements.

Based on these analyses, integrating AI and machine learning into the existing insights reporting process is expected to yield more efficient and accurate results. Moreover, this integration introduces new perspectives and profound insights, enhancing existing processes.

Jin Kwon
Community Insights Specialist Candidate

Standing on Giants