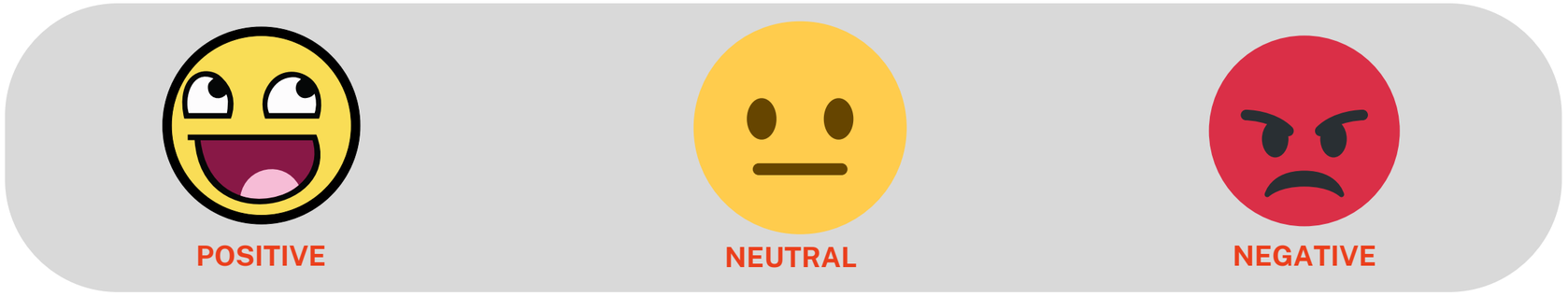
Sentiment Analysis

AIR BNB REVIEWS (SEATTLE)



BACKGROUND

The sharing economy has transformed the way people access resources and services, with Airbnb being a prime example of its success. Since its inception in 2008, Airbnb has become a popular alternative to traditional hotel accommodations, allowing travelers to rent unique and affordable homes and apartments. As Airbnb continues to expand globally, it is crucial to understand customer perceptions and experiences on the platform. This study aims to analyze customer reviews of Seattle Airbnb listings using sentiment analysis, providing valuable insights into customer preferences and feedback. The findings of this study can assist business owners in identifying areas for improvement, supporting the sustainable growth of the company, and informing policymakers and stakeholders about the overall sentiment of the Seattle Airbnb market.

What is the sentiment expressed in Airbnb reviews and how can it be automatically analyzed using natural language processing techniques to improve the quality of service provided by hosts?

OBJECTIVE

The objective of this study is to analyze customer reviews of Seattle Airbnb listings using sentiment analysis, providing valuable insights into customer preferences and feedback. This information can be used to identify areas for improvement and to provide actionable feedback to hosts.In this section, state what is the purpose of your study.

METHODOLOGY

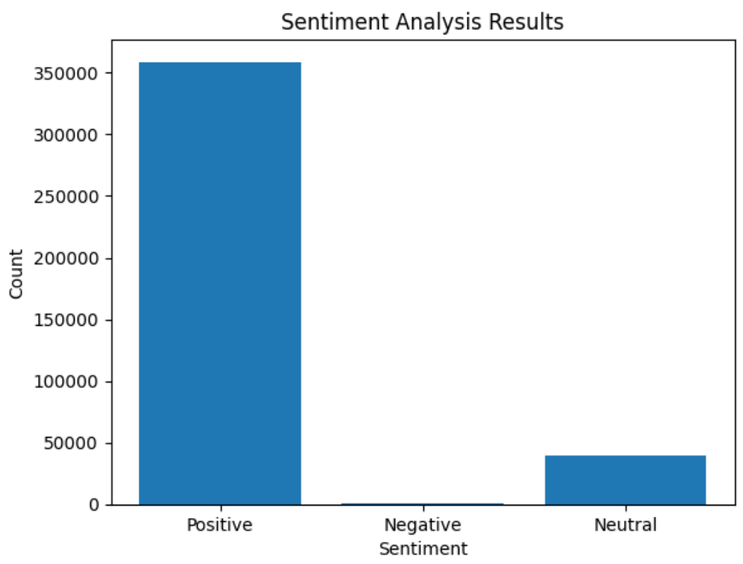
The data was preprocessed by removing duplicates, handling missing values, and converting text reviews into a machine-readable format. Natural Language Processing (NLP) techniques such as tokenization, part-of-speech (POS) tagging, and dependency parsing were applied to extract useful information from the text data. A sentiment classification model was built using machine learning algorithms to classify each review as positive, negative, or neutral. The accuracy of the sentiment classification model was evaluated using metrics such as precision, recall, and F1-score.

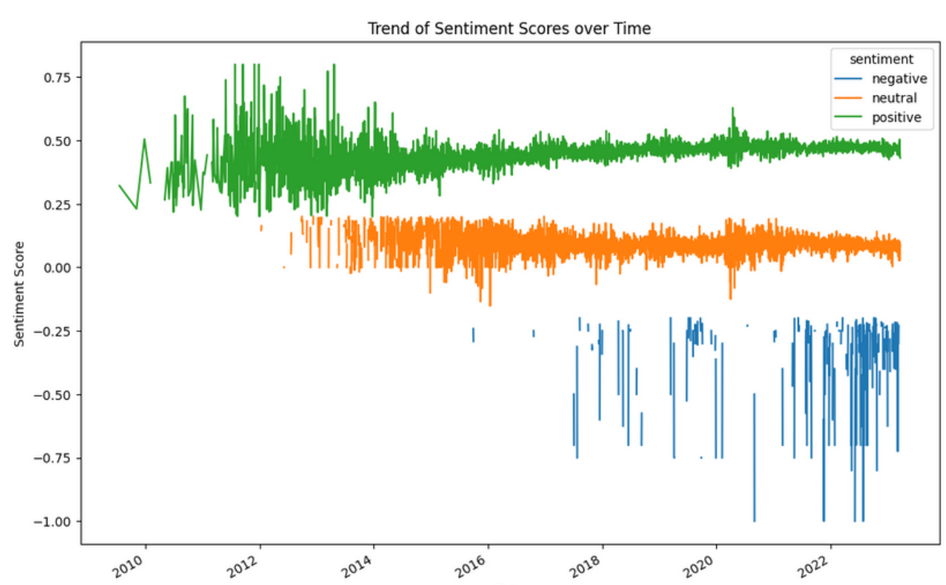
RESULTS

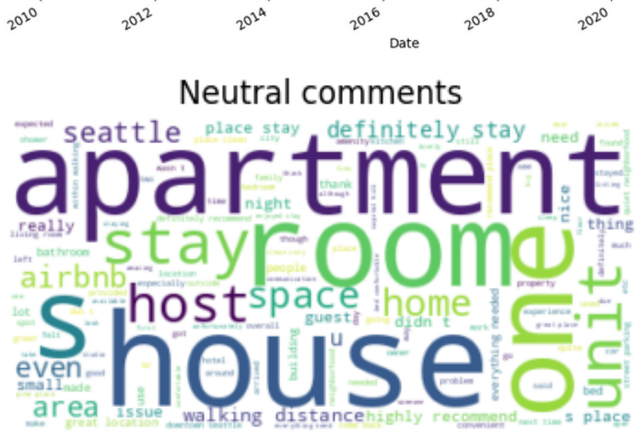
The analysis revealed that the majority of comments had a positive sentiment, indicating overall customer satisfaction. The sentiment polarity distribution was largely moderate, with a slight tendency towards positivity. The evaluation of the sentiment classification model showed high precision, recall, and f1-score for all three categories, with an accuracy of 98%, indicating the effectiveness of the model in accurately predicting the sentiment of the comments.

ANALYSIS

The analysis indicates that the majority of the reviews are positive in nature.The most frequently used positive words were "clean," "comfortable," and "great," while the most frequently used negative words were "small," "old," and "problem." Overall, the sentiment analysis suggests that Airbnb hosts should focus on providing clean, comfortable, and well-maintained accommodations to ensure a positive guest experience.







CONCLUSION

In summary, the sentiment analysis showed that the majority of reviews were positive, indicating the strengths of the Airbnb services. The analysis can help hosts and managers identify areas for improvement, leverage positive reviews to attract new customers, and track the effectiveness of their efforts to improve customer satisfaction.

REFERENCES

Rodrigues, A. C. G. F. A. (n.d.). Text mining of Airbnb reviews (Master's thesis). NOVA Information Management School, Instituto Superior de Estatística e Gestão de Informação, Universidade Nova de Lisboa.