

1. Introduction

Tourism is an essential thing for countries, including Indonesia. Tourism is the second largest foreign exchange earner after the Oil and Gas industry in Indonesia. Tourism is also inseparable from facilities such as lodging and tourist attractions that visitors need so that tourism activities can run comfortably. To ensure that tourism runs comfortably, it is also essential to know the intent of the reviews given by existing visitors.

Hotel reviews on the web are growing fast because of the development of the Internet. Hotels may learn how customers feel about their amenities and services by examining visitor feedback, and they can then make the necessary modifications. Through hotel reviews, guests may learn about the benefits and drawbacks of hotels fast, enabling them to make informed decisions. Therefore, it is crucial for both hotels and guests to understand the sentiment of online reviews.

Sentiment analysis is the process of classifying hidden attitudes in texts into positive and negative ones by using computer algorithms to assess them [1]. If sentiment analysis is performed on the hotel reviews, it will be easy for people to understand the general sentiment of the reviews.

Visitors who search for hotels in particular tourist locations usually check the hotel reviews on the Internet before making a hotel reservation. Because it takes a long time to read and comprehend these reviews, travelers and new customers of hotels may occasionally doubt them. We can utilize machine learning to perform sentiment analysis on hotel reviews. Later, we can import the trained model into a web-based application so travelers and new customers can perform sentiment analysis alone without taking a long time to read the reviews.

This paper uses the above methods to show how to perform a sentiment analysis on the Tripadvisor Top 150 Best Value Hotels in Indonesia reviews. Later in this work, a comparison will be made between the three different classification methods. This work also covers leveraging the trained model into a web-based sentiment analysis application on hotel reviews