

ABSTRACT

Information technology has become an essential component in various fields, one of which is in the world of tourism. This can be seen with the emergence of websites in the tourism sector, such as Tripadvisor. With Tripadvisor, most travelers can search for information about the destination they want to visit to find out what's going on there and provide input for other visitors. This study's case study is a tourist review of the five most favorite beaches in Bali, namely Double Six Beach, Seminyak, Nusa Dua, Kelingking, and Canggu on the Tripadvisor Website. The island of Bali is one of the famous tourist destinations to foreign countries as a tourist spot that has a beautiful panorama in Indonesia. One of the fascinating natural attractions in Bali is the beach. However, in 2020 tourist arrivals began to decline due to the COVID-19 pandemic. To restore the situation, the manager of attractions on each beach can attract tourists to visit again by doing promotions through the Tripadvisor website. This research will make the five most favorite beaches in Bali as a parameter in the object of the Tripadvisor website, which is carried out by sentiment analysis. The analysis results will determine how the opinions of tourists on the five beaches using the Long Short-Term Memory (LSTM) architecture with sentiment will be classified in the form of positive and negative labels. With the Long Short-Term Memory (LSTM) architecture, this research will produce a classification that can visualize the sentiments of each beach. In conducting the classification, this study uses a training and testing ratio of 80:20 with the undersampling method because it has the highest overall accuracy with Double Six Beach 83%, Seminyak 81%, Nusa Dua 84%, Kelingking 81%, and Canggu 84%. The prediction results obtained from the classification results are more dominant on the positive label. In addition to classifying sentiment analysis, this study also measures the model's performance created by calculating the value of precision, recall, F1-Score, macro average, and weight average for each beach classification result.

Keywords— Long Short-Term Memory (LSTM), Beach, Bali, Analysis Sentiment, Tripadvisor