ABSTRACT

Bali island is one of the tourist destinations that are well known to foreign countries. Indonesia, as a country that has much natural wealth tries to utilize tourist areas on Bali island to bring more tourists. One of the natural wealth that exists on Bali island is its beach attraction, which has attracted a lot of tourist interest. To attract more tourists, beach attraction on Bali island is promoted through one of the largest travel websites in the world, Tripadvisor. On the Tripadvisor website, tourists can see what beach exists on Bali island. Besides, tourists can also see which beach is categorized as the most favorite beach on the website. Each beach has reviews written directly by tourists who have visited the beach. However, reviews written by tourists who have visited are unreliable, even can be biased, misleading, and not reflect the actual value. Therefore, the Sentiment Analysis of Beach Reviews in Bali on the Tripadvisor website can be used as a solution. This study uses real datasets obtained from the Tripadvisor website in tourist reviews of the five most favorite beaches in Bali: Seminyak Beach, Nusa Dua, Double Six, Kelingking, and Canggu. Sentiment analysis is carried out using the Convolutional Neural Network (CNN) architecture, producing positive and negative label predictions. The sentiment analysis results can be visualized into a graph that describes tourist opinions on the five most favorite beaches in Bali. Besides doing sentiment analysis, this study also measures the performance of the Convolutional Neural Network (CNN) model in making predictions. The accuracy obtained on each beach is 88% on Seminyak beach, 90% on Nusa Dua beach, 90% on Double Six beach, 87% on Kelingking Beach, and 85% on Canggu Beach. Performance measurement of the Convolutional Neural Network (CNN) model also produces precision, recall, F1-Score, macro average, and weighted average for each beach.

Keywords— ***Convolutional Neural Network (CNN), Sentiment Analysis, Beach, Bali, Tripadvisor.***