

ABSTRACT

The number of tourists coming to Bali is always increasing every year. Data shows the average growth of tourists visiting Bali per year is 11%. The growth in the number of tourists is inseparable from the development of the digital age. Bali is increasingly recognized through reviews or news on online platforms. Various kinds of destination information and facilities in Bali can be accessed easily by tourists. Information on the internet can be an initial decision for tourists to visit Bali.

This research aims to see the sentiment of tourists in Bali using IndoBERT and topic modeling. The final result of this research is the calculation of salience and valence of each topic found. Salience and valence will determine how prominent a topic is and how negative or positive it is.

The stages carried out in this research are: taking the dataset, preprocessing, and performing sentence embeddings using the IndoBERT model. Then the vector of sentence embeddings is used to classify the reviews. The vectors of sentence embeddings are also used to form optimal clusters that will be used in determining the number of topics when modeling topics.

This study found that the sentiment of tourists towards hotels in Bali is positive. The topics that can be formed are 3 topics with the categories of facilities for topic 1, services for topic 2, and location access for topic 3. The most salient and frequently discussed topic based on the salience value is topic 1 which represents facilities with a review percentage of 49.28%. The topic that has a positive sentiment based on valence calculation is topic 2 which represents service with a value of 1.02%.

The results of this study can be used as a tool for hotel management in taking action on hotel strategies in maintaining or attracting other tourists to stay at the hotel.

Keywords: *Tourism, sentiment analysis, topic modeling, BERT, machine learning, sentence embedding*