

ABSTRACT

People's perception of hospital services can be seen from reviews written online, one of which is through the Google Maps platform. Reviews not only provide information for prospective patients, but also reflect subjective experiences that can be utilized for overall service evaluation. In this study, a sentiment analysis of hospital reviews in the Purwokerto area was conducted, using the Long Short-Term Memory (LSTM) method. The data used comes from 17,261 Indonesian-language reviews collected through a web scrapping process. The analysis stages include text pre-processing, such as character conversion, data cleaning, normalization, tokenization, stopword removal, and stemming, as well as sentiment labeling using SenticNet lexicon and data balancing with Synthetic Minority Over-Sampling Technique (SMOTE) method. The LSTM model is built and evaluated using accuracy, precision, recall, and f1-score metrics. The results of the LSTM model are able to classify sentiment with an accuracy of 86%, which shows the model is effective in understanding the content of the reviews. This research shows that deep learning can be used to analyze public opinion, especially in the health sector, and can be taken into consideration in efforts to improve the quality of hospital services.

Keywords : *Sentiment Analysis, Hospital Services, LSTM, SMOTE, Confusion Matrix*