ABSTRACT

The development of information technology has changed the paradigm in seeking and obtaining health information. This research aims to overcome obstacles in the dissemination of health information in Indonesia by applying sentiment analysis based on artificial intelligence (AI), specifically using the Long Short Term Memory (LSTM) method. These obstacles include slow response, misinformation, and difficulty understanding user preferences for social media-based health application features. This research focuses on analyzing sentiment, characteristics, and social & health acceptance/adoption factors from user reviews on the Google Play Store. The main issue raised was expanding understanding of user acceptance factors for health application features. This is done to optimize application services so that they are more responsive, relevant and in line with user expectations. The research method uses a conceptual model which involves identifying business needs, classification modeling on social & health factors, and sentiment analysis with the help of deep learning using LSTM. Evaluation is carried out by checking accuracy, to evaluate the performance of the LSTM algorithm. The systematic problem solving used is problem identification, data collection and processing, evaluation, and drawing conclusions and suggestions. With a dataset ratio of 70:30, using 30% testing data with 18 epochs and a batch size of 28 produces an accuracy of 98.13%, a precision of 99.79%, a recall of 98.55%, and an f1-score of 99.17%. The LSTM used in this research showed high accuracy results, but was less effective due to the limited amount of data for several aspects, especially social and health aspects. It is recommended to increase and expand datasets, as well as consider other methods or data augmentation techniques, while improving cultural understanding and management of chronic diseases to maximize the effectiveness of e-Health services.

Keywords : Health, Health Applications, AI, LSTM, Social & Health.