

Abstract

In today's business world, there is significant development and emergence of various and diverse innovations. Therefore, every company needs to develop itself in various ways, one of which is going public. This involves a company selling a percentage of its value to the public in order to facilitate its growth in every aspect required. However, it is not easy for issuers to attract investors to invest their capital because each investor has different criteria in terms of investment unit value. Essentially, the stock price depends on the strengths and weaknesses of the company. Hence, in order to expand the market and manage customer relationships, information is needed as a decision support. One of the sources of information that can be used is Twitter, which includes positive, neutral, and negative opinions. This study employs the LSTM classification method and word embedding using GloVe, followed by Genetic Algorithm optimization, which is used to predict sentiment in tweets related to the BBCA stock. The model is built with classification using Long Short-Term Memory to determine the level of accuracy produced. Then, the word embedding method using GloVe is used, and the obtained results with the GloVe-LSTM method yield an overall accuracy score of 71%. Furthermore, the optimization method using Genetic Algorithm is applied to enhance the previous method, GloVe-LSTM, resulting in an accuracy of 87% with the best individual values of 111,170, 0.398, 93, etc., and the best fitness score of 0.8724.

Keywords: LSTM, GloVe, BBCA, Sentiment Analysis, Genetik Algoritma
