ABSTRACT

During the COVID-19 pandemic, people work from home, study from home, and worship from home. So many activities must be done online (online). Therefore, supporting technology is needed, one of which is a laptop. To choose a laptop to buy, consumers will look for reviews, references and discussions about laptops that have been circulating in the market. This study chose to analyze consumer review sentiment on Asus laptops and Acer laptops.

This research is useful for knowing customer sentiment towards Asus and Acer laptops on Twitter social media and applying the Support Vector Machine algorithm. Data is retrieved via the Twitter API. then the data will be labeled according to the sentiment and aspect. the data will also be preprocessed to convert all sentences to lowercase, delete numbers, delete emojis, solve words, and make these words into basic words. Then the preprocessed data is weighted so that it can be classified using the Support Vector machine. The data will be divided into training data and testing data and produce the best ratio of 70:30 for Asus data and 80:20 for Acer data. Experiments were carried out with linear kernel, radial basis function kernel and polynomial kernel then evaluated by confusion matrix and validated with k fold cross validation.

In Asus data, the best ratio is 70:30 with the best accuracy of the radial basis function kernel with an average of 99% Precision, 99% Recall, and 99% F1-Score and has been validated to produce an average of 99.63%. on Acer data the best ratio is 80:20 with the best accuracy polynomial kernel with an average of Precision 100%, Recall 100%, and F1-Score of 100% and validation has been carried out to produce an average of 99.6%.

Keywords: Acer, Asus, Sentiment Analysis, Confusion Matrix, Support Vector Machine.