ABSTRAK

Munculnya *Corona Virus Disease 2019 (Covid-19)* membuat Pemerintah Indonesia meluncurkan Aplikasi bernama Peduli Lindungi. Aplikasi tersebut digunakan sebagai 3T *(Testing, Tracing, Treatment)* dalam upaya pengendalian *Pandemic Covid-19*. Respons atau tanggapan masyarakat terhadap Aplikasi Peduli Lindungi salah satunya dituangkan pada kolom ulasan di *Google Play Store* sebagai tempat untuk mengunduh aplikasi bagi para pengguna Android. Untuk mengetahui *sentimen* atau tanggapan masyarakat perlu dilakukan *sentiment analysis* dengan *Machine Learning*. Pada penelitian ini dilakukan analisis *sentimen* terhadap *review* aplikasi Peduli Lindungi berdasarkan ulasan yang ada pada *Google Play Store*. Penelitian dilakukan menggunakan Algoritma Naïve Bayes Classifier untuk memberikan hasil klasifikasi *sentimen* dan menggunakan Teknik *Sythetic Minority Oversampling Technique* (SMOTE) untuk mengoptimalkan data yang tidak seimbang. Hasil penelitian menggunakan Algoritma Naïve Bayes Classifier tanpa teknik SMOTE menghasilkan *Accuracy* sebesar 85% dengan rata-rata *Precission* sebesar 77%, *Recall* sebesar 84% dan *F1-Score* sebesar 72%. Sedangkan hasil evaluasi menggunakan algoritma Naive bayes Classifier dengan Teknik SMOTE menghasilkan *Accuracy* sebesar 82% dengan rata-rata *Precission* sebesar 72%, *Recall* sebesar 75% dan *F1-Score* sebesar 74%. Penerapan Teknik SMOTE pada penelitian ini mengalami penurunan *Accuracy* sebesar 0.023 % sehingga dari hasil evaluasi yang telah dilakukan dapat ditarik kesimpulan bahwa Teknik SMOTE dapat mengatasi permasalahan dataset tidak seimbang dan penerapannya dapat berpengaruh terhadap nilai *Accuracy, Precission, Recall,* dan *F1-Score* dalam suatu Algoritma. Didapatkan sentimen aplikasi Peduli Lindungi berdasarkan ulasan pada Google Play Store berkategori *Most relevant* adalah cenderung Negatif.

Kata Kunci: *Covid 19, Google Play Store, Naïve Bayes Classifier*, *Peduli Lindungi, Sentiment Analysis, SMOTE.*

ABSTRACT

The emergence of Corona Virus Disease 2019 (Covid-19) made the Government of Indonesia launch an application called Peduli Lindungi. The application is used as 3T (Testing, Tracing, Treatment) in efforts to control the Covid-19 Pandemic. One of the responses or responses from the community to the Protect Protect Application is stated in the review column on the Google Play Store as a place to download applications for Android users. To find out the sentiment or response of the community, it is necessary to do sentiment analysis with Machine Learning. In this study, sentiment analysis was carried out on reviews of the Peduli Lindungi application based on reviews on the Google Play Store. The research was conducted using the Naïve Bayes Classifier Algorithm to provide sentiment classification results and using the Synthetic Minority Oversampling Technique (SMOTE) to optimize unbalanced data. The results of the study using the Naïve Bayes Classifier Algorithm without the SMOTE technique produced an Accuracy of 85% with an average Precision of 77%, Recall of 84% and F1-Score of 72%. While the results of the evaluation using the Naive Bayes Classifier algorithm with the SMOTE technique produce an Accuracy of 82% with an average Precision of 72%, Recall of 75% and F1-Score of 74%. The application of the SMOTE technique in this study has decreased accuracy by 0.023% so that from the results of the evaluation that has been carried out it can be concluded that the SMOTE technique can overcome the problem of unbalanced datasets and its application can affect the value of Accuracy, Precision, Recall, and F1-Score in an Algorithm. The Peduli Lindungi application sentiment obtained based on reviews on the Google Play Store in the Most relevant category tends to be negative.

Key: Covid 19, Google Play Store, Naïve Bayes Classifier, Peduli Lindungi, Sentiment Analysis, SMOTE.