

**SELEKSI FITUR INFORMATION GAIN PADA ANALISIS SENTIMEN
TERHADAP ULASAN APLIKASI FLIP DENGAN ALGORITMA
SUPPORT VECTOR MACHINE**

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ABSTRAK

Flip merupakan aplikasi untuk melakukan transfer antar bank berbeda tanpa dikenakan biaya serta menyediakan jasa pembelian pulsa serta paket data yang umumnya bekerja sebagai jembatan transaksi antar bank berbeda. Ulasan yang diberikan pengguna aplikasi Flip banyak berisi opini yang membangun maupun mengkritik yang dapat dijadikan masukan bagi pengembang aplikasi Flip. Tujuan dilakukannya penelitian ini adalah untuk membangun model klasifikasi sentimen menggunakan metode *Support Vector Machine* dan seleksi fitur *Information Gain* terhadap ulasan aplikasi Flip pada layanan Google Play. Dalam penelitian ini, ulasan akan dibagi menjadi dua kategori yakni positif dan negatif berdasarkan pelabelan manual oleh 3 penilai, yang kemudian dilakukan *preprocessing*, seleksi fitur, serta pembagian data sebesar 80% data *train* dan 20% data *test* sebelum pembuatan model. Terdapat dua model yakni model tanpa seleksi fitur (model SVM) dan model dengan seleksi fitur (model SVM-IG). Hasil evaluasi menunjukkan akurasi sebesar 91.97%, presisi sebesar 95.53%, recall sebesar 91.45%, dan AUC sebesar 0.9215 untuk model SVM, sedangkan untuk model SVM-IG yakni akurasi sebesar 96.25%, presisi sebesar 99.10%, recall sebesar 94.87%, dan AUC sebesar 0.9672.

Kata Kunci: Analisis Sentimen, *Support Vector Machine*, Seleksi Fitur, *Information Gain*, Flip.

**FEATURE SELECTION USING INFORMATION GAIN IN SENTIMENT
ANALYSIS OF FLIP APPLICATION REVIEWS WITH SUPPORT
VECTOR MACHINE ALGORITHM**

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ABSTRACT

Flip is an application to make transfers between different banks at no cost and provides services for buying credit and data packages that generally work as a bridge for transactions between different banks. Reviews given from Flip application users contain many constructive and critical opinions that can be used as input for Flip application developers. The purpose of this study is to build a sentiment classification model using the Support Vector Machine method and the Information Gain feature selection method for the Flip application review on Google Play services. In this study, the reviews will be divided into two categories that is positive and negative based on manual labeling by 3 assessors, which is then carried out preprocessing, feature selection, and split data of 80% data train and 20% data test before modeling. There are two models, namely a model without feature selection (SVM model) and a model with feature selection (SVM-IG model). The evaluation results show an accuracy is 91.97%, precision is 95.53%, recall is 91.45%, and AUC is 0.9215 for the SVM model, while for the SVM-IG model the accuracy is 96.25%, precision is 99.10%, recall is 94.87%, and AUC is 0.9672.

Keyword: Sentiment Analysis, Support Vector Machine, Feature Selection, Information Gain, Flip.