

ABSTRACT

Beauty products have become a necessity for humans, especially by women, but not all beauty products are of good quality or suitable for everyone. Reading reviews can make it easier for consumers to choose beauty products that are of good quality and in accordance with their wishes. Various product reviews, reviews can contain positive sentences and negative sentences. However, there are hundreds or even thousands of reviews, consequently it takes longer to read the reviews one by one manually. Therefore, text processing is needed in the form of sentiment classification which automatically categorizes product reviews into positive class or negative class using the Multinomial Naïve Bayes method. Multinomial Naïve Bayes is a method of development of the Naïve Bayes Classifier, which method is easily applied. In text classification, preprocessing is very important because the text in the review contains unfavorable word structure. In this Final Project, preprocessing is compared between preprocessing without stemming, preprocessing without stopwords, and preprocessing using stemming and stopwords. After that, preprocessing experiments are conducted with imbalance data and balance data. From the experiments conducted, using balance preprocessing data without stemming produces the highest F1-Score, the result is 63.77%. Preprocessing without stopwords get F1-Score 63.23% and preprocessing using stemming and stopwords get 62.07%.

Keywords: sentiment classification, *multinomial naïve bayes*, *preprocessing*, *stemming*, *stopwords*.