

ABSTRACT

Product reviews play an important role in consumer decision making. Nowadays, they can be found on most of the marketplaces and online forums. Among Indonesian women, beauty product is the most discussed topic, which leads to an increasing number of reviews. Considering the number, extracting aspect-based information from unstructured review text is a challenging task for consumers. Therefore, providing automatic aspect-based opinion mining will be a very valuable service for the consumers. In this study, we performed aspect-based opinion extraction and polarity classification by using Naïve Bayes. We applied Synthetic Minority Oversampling Technique (SMOTE) and obtained 50.55% for overall aspect F1-Score. We also used 10 different preprocessing settings that combine filtering and stemming for Indonesian and English language. The result shows that setting with filtering and stemming for the Indonesian language achieved the highest score of 53.04% for F1-Score.

Keywords— preprocessing, smote, naïve bayes, beauty product, opinion mining