

Abstract

Product review is one of the criteria that are useful for prospective buyers to make a decision on the purchase of a product. Numbers of the review for a product make buyers hard to draw conclusion for the product, so it will be difficult for the customer to decide to buy or not to buy the product. To overcome this problem we need a system that can automatically identify product features, classify them as positive or negative, and generate summary of the product review to help the process of reading of a product review. There are two process before generation of summary, the first is product feature extraction done by association mining method to get frequent item set with two schemes, noun filtering and noun phrase filtering. The second process is classification of the extracted product features to positive or negative orientation using supervised learning with Random Forest algorithm. A review sentence can have more than one product features, so it need to chose aspect level in determining sentiment. Summarization of product review on each features done extractively by displaying separated product features by orientation, positive or negative.

The use of association mining using two schemes of word selection produce 20%-40% f-score, depend on the specified minimum support. This can occur due to many extracted product features that are not identical to product features from the expert judgement and error in expert judgement labelling that affect evaluation calculation. The use of multiple classification attribute affects the accuracy.

Key Word : product review, product feature extraction, association mining, classification, opinion summarization, supervised learning.