## Abstract

Nowadays online product review sites provide facilities so that site visitors can give a review on existing products on the site. Each of these reviews has a sentiment that is very useful and influential for the visitors in decision making both individuals and organizations. The sentiment that existed at each review can be positive or negative. Could be both at once in one review. This is due to the target not only the opinion of the reviewer on the product as a whole but on specific parts of a product called features.

In this TA, research conducted sentiments of a product review based on product features. Review the data used in this TA were taken from www.bhinneka.com site using Indonesian language. At the end of this task is to identify sentiment on a review to determine the expression of the sentiment of the reviews. Product review data that has been collected will be processed and used as input to the classifier Naive Bayes. Then the output of the Naive Bayes will be maximized using the Expectation Maximization algorithm with the use of unlabeled data. Results obtained from this research to validate the accuracy of Naive Bayes Classifier is 99.063% and 97,813% after adding Expectation Maximization Algorithm using 104 unlabeled data.

Keywords : product review , classification , Naive Bayes , Expectation Maximization