Abstract

Information technology develops massively and quickly impact on human life, on the economic sector, people's interest shift from conventional buying and selling process to a more modern way, that is buying and selling process thorough online media. The change is certainly not wasted by the manufacturer, as evidenced by the many emerging online trading providers through website. In the economic sector, it is called e-commerce. Consumers can contribute to assessing the product by writing a review. Product review can be used by manufacturer to assess the production quality while potential customers can use the review as a decision to buy a product. The reviews provided by consumers are often incompatible with the standard rules and the amount is not little. Potential customers as readers often find it difficult to understand reviews and do not have enough time to analysis the review in large quantities. Therefore, in this final project, a system capable of classifying sentiments and summarizing the results of sentiment classification was built. The classification of product reviews analyzed was based on sentence level. This research was conducted by Bayesian Networks method. Bayesian Networks is a data modeling method into the DAG (Directed Acrylic Graf) model, which is a graph depicting probability relationship between interrelated variables. The method was chosen because in the sentiment analysis process, objects and adjectives in the sentence were interrelated and can affect each other. Mutual information (MI) is a method for determining the relationship between words and Bag of words as a method of opinion extraction. Bayesian Network for sentiment classification on sentence resulted in 85.6% performance and 88.46% of aspect feature classification.

Keyword: Analysis Sentiment, Bayesian Networks, Text mining, Sentence level, Opinion summarization, Supervised learning, Mutual information