

## Abstract

In the internet development at the moment, many people take advantage of it to make an online website which provides the information needed by the customer. One of them is a website which has content for online shopping. Besides making the shopping easy, the online shopping websites are also carrying common features, such as product reviews or feedback from the goods sold on the online shopping website.

The response to an item on online shopping websites is often used as a reference for goods quality. The number of responses to an item in an online shopping website makes the process of summarizing the results of the responses of the goods become difficult. Therefore, to make it easier concluding the response to an item, we need to make a summarization system to analyses the results of customer feedback in an online shopping website.

The summarization system is conducted using the method of CRF (Conditional Random Fields) for extract its aspects and K-NN for classification. Parameter required in this system is the percentage of training data, the use of lemmatization in the preprocessing, the standard deviation value on the extraction aspect, the value of learning rate on the extraction aspect, the threshold on extract opinions, and the value of k in the classification.

This research was conducted to find effective value input parameter. The results obtained from this research is the effective value of the percentage of the training data by 70%, the use of lemmatization in the preprocessing stage, the effective value of the standard deviation is 1.75, the effective value of learning rate is 0.01, the effective threshold value is 0.5 and the effective k value is > 7.

**Keywords:** Summarization, CRF, K-NN