1. Introduction

Along with technological advancements, the process of finding out for information is also evolving. One of the informations that frequently search by people is the information about film industry. The film industry is an enterprise that each and every year is growing well[1]. It can be effected by a great enlarge of internet users around the world[2]. Internet gives an easy access to watch any kind of movies from any websites which provided by it. By that easy access, people need to knowing the fine of the movie. Nowadays, lot of sites provide the information about movie review[3]. With the availability of existing movie reviews data, lot of studies have been conducted, one of the Natural Language Processing that is relevant to movie review data is sentiment analysis.

Sentiment analysis is the process of extraction and classification based on the sentiment from a text[4]. This analysis is an important information on the development of any products, one of them is movie production[5]. The result of the sentiment analysis of movie review will classify the review be a positive review or a negative review. Positive review point out that the comment given has a good review, it means that the film reviewed is a good movie. However, negative review indicates that the comment given have poor grades, or in other words, the movie that reviewed is not a good movie.

The sheer volume of features in sentiment analysis is one of the problem. The performance of classification can be decreased by having a large number of features [5]. For this reason, a feature selection process is needed. There are several feature selection techniques that often used in sentiment analysis. In this study, the feature selection that will be used is Chi-Square technique to calculate the degree of a feature on a class. Paper [6] Chi-Square method proved in improving the accuracy of classification performance from 73.33% to 93.33%. The method used in the study [6] is Naïve Bayes.

In this study, the method to be used is K-Nearest Neighbor. This method is chosen based on the previous research. In [7] research, KNN method is considered a high-quality approach in behavior analysis, especially in sentiment analysis. Paper [8] used KNN method in sentiment analysis of movie review, and executed an accuracy of 96.8%