Abstract− Social media are a platform for people to express their opinions on various topics, one of which is Twitter. Movie reviews are a frequently found topic on Twitter that contains a person's opinion of a movie that has been watched. But since opinions are subjective, it is difficult to determine an accurate assessment of a movie. In addition, the diverse aspects of a movie make it difficult to judge whether a review is positive or negative. Referring to that problem, a method is needed to perform sentiment analysis of the problem to be used as an analysis in increasing audience satisfaction with films in the future. In this study, sentiment analysis of movie reviews was carried out based on aspects of plot, acting, and director. This research also performs classification using a CNN model and combines several techniques, that is TF-IDF feature extraction, FastText feature expansion, and SMOTE to calculate the accuracy value and F1-Score. The final results obtained in this study are in the aspect of the plot getting an accuracy of 73.81% (+12,22%) and F1-score 73.72% (+15,93%), the acting aspect obtaining an accuracy value of 89.30% (+0,54%) and F1-score 89.26% (+50,80%), and in the aspect of the director having an accuracy of 87.37% (+0,28%) and F1-score 87.35% (+84,39%). Based on these results, each application of techniques such as TF-IDF, FastText, and SMOTE can increase the accuracy value and F1-Score of the model built.

Keywords: Sentiment Analysis, Social Media, Convolutional Neural Network, Aspect, FastText, SMOTE