

Abstract

The development of technology and information has significantly led to enhanced accessibility of certain types of media, specifically reviews on the internet. These reviews can be valuable for assisting customers in making informed purchasing decisions while providing business owners with valuable insights to refine their operations. To analyze customer opinions, one approach is to use Sentiment Analysis. This method incorporates techniques like Natural Language Processing and Artificial Intelligence to categorize opinions into positive or negative sentiments. This analytical process can be applied to various forms of text, such as reviews. The goal is to understand the emotional tone or opinion conveyed in the reviews. In the realm of sentiment analysis, there exists a specialized method known as aspect-based sentiment analysis. Reviews are dissected into relevant aspects. For example, in a restaurant review, the aspects that might be analyzed are food, price, service, and ambience. Several methodologies can be employed for sentiment analysis, including Naïve Bayes classification and using Word2Vec as a feature extraction tool. The highest performance result by using Naïve Bayes and Word2Vec on this research produces an overall performance of 85.27%, 83.96% for food aspect, 87.89% for price aspect, 86.87% for service aspect, and 87.33% for ambience aspect.