

ABSTRACT

SENTIMENT ANALYSIS WITH COMPARISON OF CLASSIFICATION ALGORITHM CASE STUDY: E-WALLET (LINKAJA) FROM SOCIAL MEDIA TWITTER

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E-money is one of payment innovations that arises from the impact of increasingly rapid technological development. Since August 14, 2014, Bank Indonesia has launched GNNT (National Non-Cash Movement) which makes some people in Indonesia conduct online transactions with electronic technology and is one of the causes of many business start-up companies that develop product innovations in the financial services sector as Fintech (Financial Technology). One of Fintech which is currently popular in Indonesia is digital wallet or e-wallet including Go-Pay, OVO, DANA, LinkAja and others. In this study, LinkAja as the fourth most popular fintech product in Indonesia uses Twitter as one of the customer service accounts that can be easily accessed by its users. With Twitter being a customer service account from LinkAja, Twitter users can provide many opinions or responses on the platform. LinkAja was made the object of research because based on Daily Social research, said the product experienced a decline in active users in 2019, which means it has a problem that needs to be analyzed. This research will examine whether sentiment analysis can be used to find out the possible problems being faced by LinkAja and find out how Twitter users respond to these products. This research was conducted with sentiment analysis comparing three classification methods namely Naïve Bayes, Decision Tree (C4.5), and K-NN (K-Nearest Neighbor). The sentiment analysis is done by preprocessing, processing,

classification and evaluation . From the comparison results, the accuracy of the K-NN method is superior to the Naïve Bayes and Decision Tree (C4.5) methods. The results obtained from the comparison of the three algorithms are the highest accuracy Naïve Bayes algorithm is obtained using the Term Frequency extraction feature with the results of 60.55%, precision (specificity) 54.56%, recall (sensitify) 58.50% and F1-Measure 55.01%. The highest accuracy of the Decision Tree (C4.5) algorithm is obtained using the Term Occurrences and Binary Term Occurrences extraction features with the same results namely 68.49%, precision (specificity) 54.30%, recall (sensitify) 43.27% and F1-Measure 41.85%. The highest accuracy of the K-NN algorithm was obtained using the TF-IDF extraction feature with a yield of 73.45%, precision (specificity) 63.79%, recall (Sensitify) 63.32% and F1-Measure 63.53%. In this study, Twitter users tend to respond with negative comments that contain complaints, demanding comments, and Twitter users' discomfort with LinkAja products.

Keywords: Sentiment Analysis, Twitter, Classification, E-wallet, LinkAja..