

ABSTRACT

In Indonesia, as legal P2P lending has emerged, illegal P2P lending has also emerged which has not yet received permission from the authorities, that is, there are at least 400 illegal fintech companies operating in Indonesia. And the problem that often occurs in peer-to-peer lending platforms in general is the lack of anticipation from the peer-to-peer lending platform for borrowers who fail to pay due to the high interest rate applied and the absence of selection of borrowers who have bad credit risk. high or have a low risk of bad credit. To solve this problem, a Machine Learning system model is needed that can classify borrower data which can later be integrated with data at other financial institutions to select prospective borrowers who have low and high risk of bad credit, one of which is the Naïve Bayes Classifier algorithm model. Naïve Bayes Classifier Algorithm Method is an independent model that handles simple classification based on Bayes theorem. Naïve Bayes is an algorithm that can classify certain variables using probabilistic and statistical methods. With the Naïve Bayes classifier method, a system will be created that will assist peer-to-peer lending in selecting peer-to-peer lending users or customers who have low credit risk or high credit risk. To produce the best classification performance, hyperparameter tuning is performed for each simulation. Hyperparameter tuning is the process of finding the optimal value of the hyperparameter of a machine learning model to improve the performance of the machine learning model. This is done by trying various hyperparameter values and comparing their results with performance metrics. In performing hyperparameter tuning on the GaussianNB algorithm, the var_smoothing hyperparameter is needed. So that the result of the best hyperparameter tuning is with a var_smoothing value of 0.009638958856642498 with a comparison of train_size and test_size of 70:30 with an accuracy score of 95%.

Keywords : Fintech, Sharia Peer-to-Peer Lending, Naïve Bayes Classifier Method, Credit Score, Hyperparameter Tuning