

## ABSTRACT

The advancement of technology has impacted various aspects of life, including financial companies that utilize technology to enhance service efficiency. Financial companies have challenges related to number of loans that continue to increase so that companies have difficulty processing consumer data. To overcome this, company plans to optimise system by implementing a realtime loan eligibility process using detailed data filled in by consumers when applying for a loan. The application of machine learning methods to customer selection process is expected to be an effective solution to improve efficiency and accuracy in determining loan eligibility. Adaptive Boosting is a popular algorithm in field of data mining. The application of data mining methods to credit risk problems requires a thorough process to get a high accuracy value. In this study, data used is Dream Housing Finance data in 2022 by applying AdaBoost method to optimise process of analyzing the risk of default on borrowers. Results showed that use of tuning hyperparamters GridSearchCV and RandomSearchCV resulted in an accuracy value of 80.94%. However, by considering estimated processing time, RandomSearchCV hyperparameters tuning is better than GridSearchCV. Both hyperparameters tuning methods are equally well used to optimise accuracy value, only different in estimated processing time.

**Keywords:**

*Data Mining, Adaptive Boosting, Tuning Hyperparamters, RandomSearchCV, GridSeachCV*