ABSTRACT

Predicting property prices is an uncertain condition for every property player, especially public appraisers tasked with determining the price of the assets being appraised. This poses a challenge for public appraisers involved in buying and selling transactions to determine prices accurately. Currently, manual price prediction using Excel is a challenge because the data is not updated in real-time according to current conditions. By relying on historical data and advanced algorithms, machine learning with Gradient Boosting Machines algorithms can. By relying on historical data and advanced algorithms, machine learning using the Gradient Boosting Machines algorithm can predict property prices with higher accuracy and consistency. This algorithm works by combining several simple models, known as weak learners, to form a stronger predictive model. Each new model is added to correct the errors made by the previous model, thereby gradually improving prediction accuracy. The variables used as predictors include input forms that will display the final result in the form of property price predictions. With this research, it is hoped that property prices can be predicted based on property price variables, land area, building area, location, and front road width with 82% better accuracy than the prediction method based on Excel. GBM will display the R-squared indicator, MAE value, and RMSE, which can be parameters to minimize prediction errors in property price values.

Keywords: *property price prediction, machine learning, gradient boosting machines, web, public appraisers, manual prediction.*