House Price Estimation in Hanoi Using Artificial Neural Network and Support Vector Machine: in Considering Effects of Status and House Quality

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SUMMARY

House pricing is considered to be a complex social - economic process that is difficult to model with relevant accuracy. Based on Status Quality Trade Off theory, this paper aims to employ regression models, namely Artificial Neural Network (ANN) and Support vector machine (SVM) and Ensemble techniques, in estimating the sale prices of residential properties. Ha noi was selected as a case study in which 1000 locations of houses and influencing factors were collected and used to train and to validate the models. Outputs of the models were further analyzed in considering the effects of status of the house (intangible) and quality of the houses (tangible). The results show that the forecasting methods based on ANN and SVM are feasible and effective.
