

A Case Study on Determination of House Selling Price Model Using Multiple Regression

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ABSTRACT

This research illustrated the procedure in selecting the best model in determining the selling price of house using multiple regression for the data set which was collected in Oxford, Ohio, in 1988. The five independent variables considered in this data set are: floor area (square feet), number of rooms, age of house (years), number of bedrooms and number of bathrooms. The multiple regression models were involved up to the fourth-order interaction and there were 80 possible models considered. To enhance the understanding of the whole concept in this work, multiple regression with eight selection criteria (8SC) had been explored and presented. In this work the process of getting the best model from the selected models had been illustrated. The progressive elimination of variables with the highest p-value (individual test) was employed to get the selected model. In conclusion the best model obtained in determining the house selling price was M73.15 (ie. 73rd model).

Keywords: multiple regression, fourth-order interaction variables, eight selection criteria (8SC), progressive elimination of variables