Estimating Housing Prices Using Automatic Linear Modeling in the Metropolis of Mashhad, Iran

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Abstract: Market-transaction price for housing is the main criteria for determining municipality taxes and is determined and announced on an annual basis. Of course, there is a discrepancy between the actual value of transactions in the Bureau of Finance (P for short) or municipality (P' for short) and the real price on the market (P"). The present research aims to determine the real price of housing in the metropolis of Mashhad and to pinpoint the price gap with those of the aforementioned apparatuses and identify the factors affecting it. In order to reach this practical objective, Automatic Linear Modeling, which calls for an explanatory research, was utilized. The population of the research consisted of all the residential units in Mashhad, from which 317 residential units were randomly selected. Through cluster sampling, out of the 170 income blocks defined by the municipality, three blocks form high-income (Kosar), middle-income (Elahieh), and low-income (Seyyedi) strata were surveyed using questionnaires during February and March of 2015 and the information regarding the price and specifications of residential units were gathered. In order to estimate the effect of various factors on the price, the relationship between independent variables (8 variables) and the dependent variable of the housing price was calculated using Automatic Linear Modeling in SPSS. The results revealed that the average for housing price index is 788\$ per square meter, compared to the Bureau of Finance's prices which is 10\$ and that of municipality's which is 378\$. Correlation coefficient among dependent and independent variables was calculated to be R²=0.81. Out of the eight initial variables, three were omitted. The most influential factor affecting the housing prices is the quality of Quality of construction (Ordinary, Full, Luxury). The least important factor influencing the housing prices is the variable of number of sides. The price gap between low-income (Seyyedi) and middle-income (Elahieh) districts was not confirmed via One-Way ANOVA but their gap with the high-income district (Kosar) was confirmed. It is suggested that city be divided into two low-income and high-income sections, as opposed three, in terms of housing prices.

Keywords: automatic linear modeling, housing prices, Mashhad, Iran

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