Estimation on Recreational Value of Tuchal Mountainous Region Using Hickman Two Stages Econometric Model

Houman Liaghati, Afsaneh Naeemifar, Naghmeh Mobarghei Dinan

Introduction: Mountainous region of Tuchal, with a height about 3962 meters above sea level, is located in north of Tehran, capital of Iran. With regards to population growth, and increasing urbanization, and air pollution issues, it is known as one of the most important recreational area for health recovery and relaxation among people living in Tehran. As these spaces are known as public goods with free access, most of the visitors are not informed from its real utility and values. This usually decline efficient and optimum use of these spaces and causes their degradation. The economic values of natural recreational regions not only increase their conservation by users, but also create more accurate information for decision makers to improve properly other natural regions. It can also be effective in forecasting requirements, omitting deficiencies and developing tourism industry in the recreational areas.

Materials and methods: In this study, recreational value of Tuchal region is estimated with contingent valuation method from 227 respondents. The method is used in open-ended way. Two stages method of Hickman has been chosen to recognize factors affecting on decision in willingness to pay in first stage and other factors affecting on deal of willingness to pay in the second stage. Required data was gathered via questionnaires and personal interview with 227 visitors. After deletion of incomplete responses and protest zeros, 47% of respondents were willing to pay entrance fee for recreational use of the region. Table 1 show estimation results of Tobit Model for willingness to pay for recreational use of Tuchal region.

Results and discussion: Household size, impressiveness of pollution in work or living places of visitors, kind of houses (apartment or villa) are the next effective variables (meaningful in 5%) on deal for WTP, in order. Although, education level is important factor and it is significant in 20% level. The age and geographic variety of work place affect just decision to WTP in the first stage and not deal of it. With regards to high recreational value estimated per hectare in the region, it is required to pay more attention to conservation of natural recreational regions. This is more important in big cities such as Tehran where habitants suffer from many kinds of pollution and deficiency of green spaces. The average WTP was 9444 Rls per visitor and recreational value of Tuchal area was estimated about 137888240 Rls per hectare, in summer 2012.

Conclusion: With regards to high recreational value estimated per hectare in this region, it is required to pay more attention to conservation of other natural recreational sites with more responsibility. This is more important in big cities such as Tehran with high level of air pollutions and deficiency of green spaces per capita.

contingent valuation method, Hickman two stages model, mountainous region of Tuchal, recreational value, Tobit Model, willingness to pay