

Mass Valuation Techniques Used in Land Registry and Cadastre Modernization Project of Republic of Turkey

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SUMMARY

Mass valuation is as “Mass appraisal is the process of valuing a group of properties as of a given date and using common data, standardized methods, and statistical testing” by the International Association of Assessing Officers (IAAO). In general, mass valuation has four steps :data management, data analysis, model building and ratio analyses and evaluation of the results. Model building phase is one of the core elements of the mass valuation process. However there are various techniques to be used in mass valuation implementations, Multiple Regression Analysis is the most commonly used technique in mass property valuation implementations in the world. New approaches, such as artificial neural networks, decision trees, support vector machines, fuzzy logic etc., are started to be used in mass valuation research studies and implementations in the world. In this study, mass valuation of residential properties, which is conducted under the “Property Valuation” component of TKMP, is evaluated according to the mentioned process above. Three different methods are used for mass valuation in chosen two pilot areas, Fatih/Istanbul and Mamak/Ankara. These methods are Multiple Regression Analysis, Artificial Neural Networks and Decision Trees. Results of these three techniques are compared to have a conclusion what technique can be preferred in terms of their advantages and disadvantages.