Development of Data Model for "Buying and Selling" of Immovable Property via UML diagrams

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SUMMARY

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ABSTRACT

The immovable "buying and selling" is an administrative transaction made in Land Registry Offices under the authority of General Directorate of Land Registry and Cadastre (GDLRC in Turkish TKGM). It is known that more than 8 million land registrial transactions were performed in 2016 in Turkey via 966 offices. These transactions are conducted through TAKBIS system, which is a good example for e-government applications. In the buying and selling process many properties can be mentioned according to the place where the real estate is located and the rights and restrictions on it. When these processes about transactions are carried out, needed data and some documents coming from other institutions are usually obtained by conventional methods rather than via e-government. The development of e-government applications that substituted for data and documents obtained by classical methods will be extremely useful for the online execution of all transactions. To perform this, it is very important to understand the authority, duties and responsibilities of the institutions involved in this process in an accurate and simple method. Later, modeling all of them, as they relate to TAKBIS under e-government, will enable the process to be carried out efficiently through e-government. UML is now known as an object-oriented modeling

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language used by many different disciplines in recent times. Especially after the conversion of LADM to the ISO standard, TUCBS studies in our country and many academic studies have been modeled with UML diagrams. With this modelling language, different presentations has been prepared for immovable trading types and transactions, and shown each trading practice process, start and end points of these practice, relations among trading practices. With this context, possible situations that may be encountered in an immovable "buying and selling" have been evaluated and modelled. Thus, the relationship between the other applications within e-Turkey and TAKBIS where immovable "buying and selling" is conducted has been investigated. One of the most important findings in this context is that all immovable "buying and selling" operations still is not conducted via e-government. The model designed in the context will contribute to the inclusion of elements not managed through e-government into the system. Thus, the trading process will proceed faster and more accurately.

Keywords: Immovable, land registry, buying, selling, UML, LADM