

ABSTRACT

Cadastral data quality index in the context of establishment and functioning of the Real Estate Integrated Information System

A real estate cadastre database contains a wide range of information, including detailed data on land, buildings, apartments and their owners or holders. A real estate cadastre should ensure the protection of each entity's property by identifying record parcels on land and working in integrity with land and mortgage registers. To this end, cadastral data should be aligned with the data quality model in the real estate integrated information system, i.e. they must ensure features such as timeliness, integrity, accuracy and reliability.

The main objective of this dissertation was to propose a cadastral data quality index and to evaluate its application, while associated intermediate objectives were as follows:

- presentation of the history of real estate cadastre as well as principles of its functioning and changes thereto,
- analysis of cadastral data for three counties located in three different voivodships, aimed at developing a methodology for evaluating their quality in the context of the establishment and operation of the real estate integrated information system,
- implementation of the Geographic Information System (GIS) tools for automating processes of development, illustration and organisation of cadastral data based on a relevant methodology,
- calculating the value of the cadastral data quality index for all analyzed cadastral plots,
- visual presentation of research results and discussion of final conclusions.

The paper consists of a theoretical part and analysis and research part, followed by a summary.

The research was conducted based on cadastral data obtained from County Centres of Geodetic and Cartographic Documentation of Dąbrowa Tarnowska, Działdowo and Siedlce. The three counties are located in different voivodships, in different parts of Poland, and most importantly, each of them has the remains of a cadastral system formed under a different rule imposed thereon after the Poland's partition.

The following research theses were confirmed:

- applying GIS tools combined with geospatial analysis facilitates research and graphic interpretation, and thus automated analysis of cadastral data,

16.03.19

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- a cadastral data quality index allow precise identification of areas with the weakest structure of such data, in the context of establishment and functioning of the Real Estate Integrated Information System.

Keywords: cadaster, land and real property register, cadastral data quality index, real estate integrated information system

16.09.13 r. 