27th IPMA World Congress

Cost and Experience Based Real Estate Estimation Model

Vahida Zujo[a,*], Diana Car-Pusic[b], Valentina Zileska-Pancovska[c]

[a] University "Dzemal Bijedic", Faculty of Civil Engineering, Sjeverni logor bb, 88000 Mostar, Bosnia and Herzegovina
[b] University of Rijeka, Faculty of Civil Engineering, Radmile Matejcic 3, Rijeka 51000, Croatia
[c] University "Ss. Cyril and Methodius", Faculty of Civil Engineering, Bld.Partizanski Odredi 24, Skopje 1000, FYR Macedonia

Abstract

In many ways, Bosnia and Herzegovina, Croatia and Macedonia are specific countries. After the war and the breakup of Yugosavia their real estate market, especially the residential one, has been exposed to major changes. This paper presents both a comparative overview of the legislative regulations regarding the matter and an experience review with a special emphasis on data obtained in the real estate agencies and by independent surveyors – civil engineers. As a result of a comprehensive analysis, a model that can be applied in all three countries has been established and presented in this paper. The model, supported by MS Excel, is based on the cost method and depends on the real estate market current trends. The model can be easily applied and modified.

Keywords: estimation, real estate, cost, market, construction costs, market price;

1. Introduction

Real estate market value estimation is a procedure in which an assessor determines the real estate value in the present moment from the aspect of purchase and sale and takes possible influences into consideration (legal, economic, spatial planning, construction and other ones). The real estate market value is the amount of money for which the real estate can be passed along from the willing seller and the willing purchaser in a transaction where

---

* Corresponding author. Tel.: +00-387-36-570-727; fax: +00-387-36-570-032.
E-mail address: Vahida.Zujo@unmo.ba

both the purchaser and the seller act independently after the real estate was marketing-promoted. Moreover, the purchaser and the seller act deliberately, independently and pursuant to gathered information.

The estimations are made with different purposes: to regulate a mortgage loan, for property transactions, for division of property, for taxation, investment decisions and feasibility studies, for determining the base stock of the company and other.

The real estate market value estimation also includes inspection of the legal status, that is, comparison of ownership and spatial documentation data with the real state, that is, the structure identification. Besides these data, the real estate estimation survey must contain the technical description, net area obtained by surveying on the site, market value estimation methodology and photo-documentation. In stable economies, the real estate estimation methodology is well known, unlike some other countries such as Bosnia and Herzegovina where this field is yet to be regulated.

Due to all the stated reasons, it is of outmost importance for the assessors to be highly professional and ethical persons and for the states to have valid regulations for this field. Besides high professionalism, the assessors must possess relevant experience from the civil engineering operational field in order to make the structure construction value estimation as realistically as possible. In their capacity as assessors the civil engineers must not only possess relevant experience in the construction operational field, but must constantly be informed about new construction technologies and construction material application in order to provide the technical description of the structure through its construction cost, that is, the percentage of specific works in the most expert manner. This enables the buyer to have access to the technical data about the real estate he wants to buy and to compare the real construction price to the purchase price. However, it must be pointed out that the proposed models have been created for civil engineers by civil engineers. This means that the model cannot be used by economists because they lack expertise to create the technical description of the structure and estimate its construction value.

Due to that, the aim of this paper is twofold: to improve the real estate market value estimation methodology with assessors – civil engineers and to help potential buyers gain access to the real structure construction price through the proposed model (the percentage of specific works: rough construction works, handicraft works, installation and other works).

The proposed model can be used:
- In the early stages of project planning (for estimation the cost for structure construction and the profit from the sale after construction) and
- During the usage of the structure (for estimation the cost of the structure, structure reconstruction, renovation, maintenance, market value of the property).

2. Defining the problems

The real estate market value estimation is an important segment of numerous investment projects in market economies. Adoption of a unique estimation methodology at the legal regulations level and clear definition of estimation models and parameters is mandatory for the real estate market value estimation to be realistically based, unique and acceptable for all process participants. Absence of such methodology opens the door to applying different methods, to doubts, suspicions, insecurities and even court procedures. One of the real estate market value estimation methods is usually applied in practice, especially with structures which make no income, e.g., residential structures and public infrastructure structures such as schools, hospitals, etc. Therefore, the here proposed model is based on real estate market value estimation.

3. Past research

The real estate (land and buildings) market value estimation can be made according to three market value estimation methods - the comparative, the cost and the income method. (Pavlovic, 2010).

From the risk analysis perspective, a property is typically treated as just another asset class. Some academics propose only a financial, not a physical or a functional, definition of valuation modeling. D'Amatoa, & Kaukob,