

Local and global determinants of office rents in Istanbul

Office rents in Istanbul

The mixed geographically weighted regression approach

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Abstract

Purpose – This paper presents a hedonic office rent model under the decentralized structure of Istanbul Office Market. The data set in the study includes 2,348 office spaces for the first quarter of 2018. This study aims to find determinants that affect the level of rent and examine whether the effects of office rent determinants are global or not.

Design/methodology/approach – To consider both global and local effects, the paper uses mixed geographically weighted regression approach in hedonic office rent analysis.

Findings – The empirical results indicate that office rent determinants such as physical, locational, neighborhood and market operational characteristics have significant impacts on the level of the rent. The findings also show that one of the office rent determinants has a global effect and the other determinants have local effects. According to the estimation results, local effects and statistical significances of these determinants vary from lower quartiles to upper quartiles.

Originality/value – To the best of the authors' knowledge, this is the first paper to consider global and local effects of office rent determinants on the level of rent, with mixed geographically weighted regression approach. The paper provides new insights into the hedonic valuation of commercial real estates, especially for decentralized office markets.

Keywords Istanbul, Hedonic approach, Mixed geographically weighted regression, Office rent, Spatial heterogeneity

Paper type Research paper

1. Introduction

Istanbul Office Market (IOM), which has started developing during the latter part of the 1980s, is a comparatively young market. The neo-liberal policies implemented in the 1980s accelerated development of modern office market. After the 2001 crisis, the initiated reform and internationalization policies provided economic growth. With increasing population, the service sector became crucial, and many new business sub-markets emerged at strategic locations of the city. The rapid growth in sub-sectors such as finance, insurance and real



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