

ALEKSANDRA ŁUCZAK

Poznań University of Life Sciences, Poland

MAŁGORZATA JUST

Poznań University of Life Sciences, Poland

AGNIESZKA KOZERA

Poznań University of Life Sciences, Poland

APPLICATION OF THE POSITIONAL POT-TOPSIS METHOD TO THE ASSESSMENT OF FINANCIAL SELF-SUFFICIENCY OF LOCAL ADMINISTRATIVE UNITS

Abstract:

In this paper we propose new approach to the construction of synthetic measure, where the objects are described by the characteristics with strong asymmetry and outliers. The aim of the paper is to present the application potential of the tools of the Extreme Values Theory (EVT) i.e. Peaks over Threshold Model (POT) in constructing a synthetic measure based of positional Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS), that utilize the spatial median of Weber. POT model has been used for identification of outliers and to determination of the positive and negative ideal solutions of financial self-sufficiency of local administrative units (LAUs). This approach is used in the assessment of financial self-sufficiency of LAUs in Poland in 2016.

Keywords:

positional POT-TOPSIS, Extreme Values Theory, Peaks over Threshold Model, synthetic measure, financial self-sufficiency, local administrative units

JEL Classification: C10, C49, H70