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SUBJECTIVE POVERTY: NEW TECHNIQUES OF MEASUREMENT AND STATISTICAL ANALYSIS

Abstract:

Poverty has always been a highly visible problem not restricted to the poorest countries as often is believed. It is a phenomenon occurring all over the world, with varying degrees of intensity. The state of poverty is not dichotomous and cannot be simplified down to categorizations of "poor" and "not poor." There are many degrees of poverty ranging from none to extreme. Research on poverty, which has been going on for more than 120 years, rarely acknowledges this reality. Moreover, the measurement of poverty is often limited to objective measures that describe economic conditions, e.g. by household income or expenditure. However, the problem of subjective poverty measurement is important, as it studies the different perceptions of poverty among respondents and is often dependent on the point of reference (on the groups to which the respondents compare themselves such as neighbors or family). Hence, we undertook research on the measurement of subjective poverty. We proposed and compared four approaches to the construction of a synthetic index of subjective poverty using the classic and fuzzy TOPSIS (The Technique for Order of Preference by Similarity to Ideal Solution) and the classic and fuzzy Hellwig's method. The vertex method (fuzzy approaches) and generalized distance measure (classic approaches) were used to calculate the distance from the pattern and the anti-pattern. The main goal is presenting approaches to assessing subjective poverty of households and comparing the results obtained with their help. The research was based on the primary research entitled "My situation during the coronavirus pandemic" conducted in April 2021. The measurement of the level of subjective poverty is an important tool for assessing anti-poverty policy; furthermore, the proposed methods for quantification of subjective poverty can be the basis for the development of anti-poverty strategies and policies

Keywords:

subjective poverty, TOPSIS, Hellwig's method, fuzzy TOPSIS, fuzzy Hellwig's method, generalized distance measure

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