

Corruption Perceptions Index or Bribe Payers Index in Digital Economics

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Abstract

Purpose of the article The search of effective ways to fight against corruption is now especially important for less developed countries where the political system is not stable enough and, in particular, in Ukraine where it has lately become a serious threat. In the era of digitalization of the economy, the development of information technologies provides useful opportunities that can be used in the fight against corruption. The practice of fighting corruption in various countries shows that the use of information technology during investigations reduces costs of investigations and provides significant savings. We will consider a new approach improving that based on 2008 Transparency International Corruption Perception Index. A review will be made and certain related questions will be discussed.

Methodology/methods Stochastic differential equations, Java programming language, methods of multidimensional data analysis.

Scientific aim The aim is to develop a new methodology based on computer modelling of Corruption Perception Index which improves that suggested in 2008.

Findings The new approach to the computation of Corruption Perception Index will make possible to more adequately use the related indices to measure the capability of a country to fight against corruption in a digital economy with the growing need to prevent cybercrime. The methodology is based on solving stochastic differential equations and methods of multidimensional data analysis.

Conclusions It is desirable, in the case of Ukraine, to create an information portal of a unified citizen database which will provide, on a per-user basis, an easy access to the essential tools for access to public services and electronic document flow. In this way, every user through his personal account will be able to perform and follow online transactions with electronic documents. This will reduce the pressure of bureaucracy and guarantee the transparency and contactless character of interaction of consumers of public services with officials. As an immediate effect, one should expect the diminution of corruption risks.

Keywords: Corruption Perceptions Index; modelling; mathematics method

JEL Classification: C6, H0

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