

Classification of European Countries by Economic Freedom Data

Assoc. Prof. Necati Alp Erilli,

Cumhuriyet University,

Dept. Of Econometrics, Sivas, Turkey

Abstract

The Index of Economic Freedom is an annual index and ranking created by The Heritage Foundation and The Wall Street Journal in 1995 to measure the degree of economic freedom in the world's nations. According to the web site of Heritage Foundation, Economic freedom is defined as below: In an economically free society, individuals are free to work, produce, consume, and invest in any way they please. In economically free societies, governments allow labor, capital, and goods to move freely, and refrain from coercion or constraint of liberty beyond the extent necessary to protect and maintain liberty itself. Cluster analysis is a method for clustering a data set into groups of similar objects. It is an approach to unsupervised learning and also one of the major techniques in pattern recognition. Hard clustering methods allow each point of the data set to exactly one cluster. In fuzzy clustering, fuzzy techniques are used to cluster the data and with these techniques an object can be classified in more than one cluster. The advantage of fuzzy clustering over classical clustering methods is that it provides more detailed information on the data. In this study, European Countries has been classified with the help of Economic Freedom Data published by Heritage Foundation. Countries are classified according to a five-year period (2013 to 2017) with the help of fuzzy clustering analysis. So that european countries are divided into classes according to their economic freedoms. Also, countries with varying degrees of five-year period have been identified too.

Keywords: Fuzzy Clustering, Economic Freedom, Classification, Europe