

Fuzzy clustering of WTO members position in the Doha Agricultural Negotiation.*

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Abstract

In this paper a fuzzy clustering approach is exploited in order to identify potential alliances among the members of the World Trade Organization within the round of agricultural negotiations following the November 2001 Ministerial Conference in Doha. Each country is described by a vector of ratings that summarizes its position with respect to several issues ranging from Tariffs to Labour Standard and Environmental concerns. The data have been taken from a study conducted in the Danish Research Institute of Food Economics, where the same objective has been pursued by a two-stage clustering strategy consisting of a hierarchical classification followed by a k-means method. The main objective of this research is to highlight how a fuzzy approach could better grasp the blurry contours that inevitably characterize clusters deriving from such complex issues and, at the same time, could more naturally point out the specific roles played by the different members in each cluster. The whole analysis has been carried out by means of the R language and the R-code which has been written to implement the fuzzy clustering strategy is provided.

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