VISUALIZATION OF INFORMATION ANALYSIS AS A TOOL FOR CLUSTER'S IDENTIFICATION OF THE GLOBAL PRODUCTION NETWORKS

Topic: World input-output modeling and databases III
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Abstract

The so-called ICIO (Inter-Country Input Output) models, properly defined, allow to reach a more accurate indicators on the interdependency in the production structure of different countries. Until now, this framework has been applicated to analyze groups of selected countries and few years. One of the reasons is the huge mass of information needed and the difficult to handle with.

This paper aims to visualize the global production process from the WIOD (World Input-Output Data Base). This data base provides disaggregated input-output matrices for 40 countries and 35 economic sectors, equivalent to more than 2 million data for each year.

In this paper the authors evaluated a visual information analysis technique associated with the network theory which is able to mapping and clustering this big data without drop out any information. This is a new tool alternative and/or complementary to Multidimensional Scaling models or the Graph Layouts, in order to lead to the identification of the main Global Production Networks and, most importantly, allow to the identification of Global Value Chains, thereby opening a way of a relevant analytical procedure.

Key words: Visualization of Information Analysis; ICIO Models; Global Production Networks; Global Value Chains.