

## **Data and Spatial Analysis for Economy and Education of 28 E.U. Member-States for 2014**

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**Abstract :** The objective of the paper is the study of geographic, economic and educational variables and their contribution to determine the position of each member-state among the EU-28 countries based on the values of seven variables as given by Eurostat. The Data Analysis methods of Multiple Factorial Correspondence Analysis (MFCA) Principal Component Analysis and Factor Analysis have been used. The cross tabulation tables of data consist of the values of seven variables for the 28 countries for 2014. The data are manipulated using the CHIC Analysis V 1.1 software package. The results of this program using MFCA and Ascending Hierarchical Classification are given in arithmetic and graphical form. For comparison reasons with the same data the Factor procedure of Statistical package IBM SPSS 20 has been used. The numerical and graphical results presented with tables and graphs, demonstrate the agreement between the two methods. The most important result is the study of the relation between the 28 countries and the position of each country in groups or clouds, which are formed according to the values of the corresponding variables.

**Keywords :** Multiple Factorial Correspondence Analysis, Principal Component Analysis, Factor Analysis, E.U.-28 countries, Statistical package IBM SPSS 20, CHIC Analysis V 1.1 Software, Eurostat.eu Statistics

**Conference Title :** ICMSCS 2016 : International Conference on Mathematical, Statistical and Computational Sciences

**Conference Location :** Paris, France

**Conference Dates :** December 29-30, 2016