

Multivariate Analysis of Life-long Learning in European Countries

Ksenija Dumicic

Faculty of Economics and Business, University of Zagreb, Croatia,

kdumicic@efzg.hr

EUROSTAT official data for 2006 and 2011 were analyzed for 33 European countries using exploratory data analysis methods, linear regression models and cluster analysis with the goal of both discovering dependence of life-long learning on certain economic variables, and making cross-country comparisons, focusing on clusters of similar countries. Life-long learning variable, expressed as % of persons aged 25 to 64 who recently received education or training, is positively correlated with variable Gross Domestic Product per capita in Purchasing Power Standards, which is expressed in relation to the European Union (EU-27) average set to equal 100. Also, life-long learning is positively correlated on employment rate given by three variables defined as highest level of education attained, % of age group 20-64 years. The indicator of employment rate considered is based on the *EU Labour Force Survey*, according to which there are three compressed levels of education coded according to the *International Standard Classification of Education*. Descriptive analysis of data shows outliers appearing for each of variables in certain countries. Using Ward linkage and Euclidean distance on five variables, five distinct clusters of similar countries appear clearly in the dendrogram. Comparison of life-long learning data for 2011 and past 2006 indicates different moving directions over 33 countries.

Key Words: Life-long learning, European countries, linear regression model, cluster analysis.