AN APPROACH TO CLUSTERING REGIONS OF UKRAINE BASED ON COMBINING VALUE ORIENTATIONS SURVEY DATA AND ELECTORAL STATISTICS ON THE POLITICAL CHOICE

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The **aim** of research is grouping of regions that represent similar political choices and value orientations of the population by combining data from the sample survey and the results of the parliamentary elections in 2012 and 2014 in Ukraine. The **concept of «value»** in this research is defined within Shalom Schwartz's theory as desirable goals that go beyond specific situations, differ in importance from each other and are guiding principles in human life.

Data set is formed by aggregation of: 1) results of the Ukrainian parliamentary elections 2012 and 2014; 2) data of the comparative sample survey - European Social Survey - the latest wave of which was held in Ukraine in 2012. The data set of the European Social Survey is aggregated at the region level and average value orientations are calculated for each region. These results are attached to a set of voting results. The European Social Survey is the most relevant source of value orientations of Ukrainians. Since 2012 there is no nation-wide representative data on value orientations which is in open access. Whereas values change quite slowly, we could use the measurement of value orientations for 2012 in relation to the results of the 2014 voting, but this requires the correct combination of voting results.

At the first stage of analysis results of the voting were represented as two data sets (in 2012 and 2014), where polling stations were represented by rows. To combine the results of voting in both years, the data set is aggregated at the level of the administrative units (cities and rural districts (groups of villages belonging to a certain region)). But at the time of the 2014 elections part of Ukraine's territories was occupied. In addition, citizens from these territories who moved to an unoccupied part of Ukraine voted not at the place of registration. That is the reason of significant shifts in the number of voters in the lists and number of voters who participated in the vote. For identification these territories cluster analysis is used. We use k-means method based on two variables: the difference in the number of voters and the difference in the turnout between 2012 and 2014. So, territories with a significant deviation in the turnout or the number of voters were excluded from the analysis.

Cluster analysis of territories simultaneously on the basis of value orientations and political choices is based on the **hypothesis** that there is a statistically significant correlation between the value orientations and the electoral choice of the population of Ukraine at the regional level. Significant Pearson correlation coefficients are shown clearly tendency for a link between the high level of expressiveness of some values and a high percentage certain political parties in 2012 and 2014. It makes possible to group Ukrainian regions on the basis of value orientations and political choices into three clusters. Regions with a high level of support for certain parties and a high level of expressiveness of values that positively correlated with these parties were classified into one cluster. Approaches to clustering of Ukrainian regions which based on the level of support of certain political parties are quite common among political and sociological researches. But this approach also takes into account value orientations which can be considered as one of the reasons for a political choice, accordingly, value orientations are more stable. Such classification of regions may be a more valid tool than a classification based on the level of support for political parties, the list of which can vary significantly from one election to another.

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