Lithuanian social policy in the European social model map

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1. Introduction

Lithuania’s European Union Policy for period 2008-2013 strategic directions called “The Social Europe - opportunities and prosperity” were stated. The strategic directions supported the EU’s employment policy and modernization of social protection systems in order to ensure that EU social costs are planned and used in response to the aging population and the changing nature of labor market. EU’s demographic policy must establish common principles of solidarity between generations, particularly favorable to family policy, ensure equal opportunities,
promote labor mobility and maintain the positive economic impact of migration in order to sustain labor market. Indicators of success were provided to meet the ambitious goals in the directions thus these goals were not accomplished. Goals intended to reach 70 per cent of overall employment rate until 2010. This indicator has been maintained in 2008, in 2009 decreased to 67.2 per cent and in 2012 amounted to 68.57 per cent. There were goals to reach the poverty risk rate not higher than the EU average. In 2012 this indicator was lowest of the 2008-2012 period, i.e. it was equal to 18.6, while the average of poverty risk rate of 27 European Union countries was 16.9. The next aim was to not exceed 10 thousand of declared migration of population in year 2012. Although last year the scale reduced to the lowest level since 2003, it still accounted for about 21 thousand of population.

Failure to achieve strategic goals is an important argument to evaluate the level of social protection in Lithuania. It is more and more important to search for answers why Lithuanian social indicators lag behind the countries of European Union, to look for examples in neighbor countries which could help to improve social conditions and reform the social security system in order to meet its goals.

Today European Union is a unique multilateral union that co-operates three basic principles: economic basis, the rule of law, democratic decision making. European Union's social policy differ substantially from Member States' social policies. Objective of the state social policy is to redistribute national resources in a way that creates solidarity among citizens and social groups and implements social justice in the society. Social policy of European Union is social regulation of the single related market areas between EU members. Social adjustment process is guided by the principle of subsidiarity and open coordination method.

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The goal of this work is to make Lithuanian Social Policy Model analysis for the period 2005-2012, based on key social indicators (public expenditure on the social sector, unemployment, poverty, income and distribution of income index) considering the context of the EU, which would help to assess the socio-economic factors that influence social responsibility development in Lithuania.

2. Method

The research methodology is based on statistical analysis. In the first stage, data containing socio-economic indicators in each of the 27 EU member states for period 2005-2012 was selected: the risk of poverty rate, social security costs, unemployment rate and distribution of income index. In the next stage, selected data was analyzed by two studies: a hierarchical cluster analysis of the data by distant and k-means models. Next, 2005 cluster analysis results were compared with year 2012 cluster analysis results. Prior to the cluster analysis, empirical data was normalized to equalize weight of variables and to avoid the distortion of the analysis. Identified social model groups by socio-economic indicators data with same socio-economic indicators of Lithuania were compared and the differences were distinguished.

The paper uses a hierarchical cluster analysis method to identify situations (states) with similar characteristics and based on the selected criteria to divide them into separate homogeneous groups (clusters). This statistical analysis method (opposite to other types of cluster analysis) allows to evaluate and test subgroups. Hierarchical cluster analysis is recommended for cases of small data volume, because it not only separates date into groups of similar cases, but also in additional subgroups, so researcher has opportunity to choose own theoretical and empirically based case number of groups (social model). Standard Euclidean square distance was used as a case measure in the EU-27 social models hierarchical cluster analysis. Euclidean square distance between cases is a measure based on determination of distance between test objects in coordinate axis. It was also decided to use the Ward cluster formation method, which maximizes the homogeneity of the groups. This cluster analysis method has the advantage of graphical results recorded in dendograms.

One of the oldest and most commonly used clustering algorithms is K-means. First of all initial k distributions centers of analyzed objects must be selected. Then an iterative algorithm is implemented in two steps. In the first step each object is assigned to the distribution, which is located closest to the center of the object. During the second step a geometric center is calculated for each distribution formed in the first. Steps are repeated until the objective function value is stabilized. Euclidean space metric is used to indicate how close to each other the two selected
points are. Euclidean space metric uses sum of the squared error (SSE), which is also known as the square error criterion.

Data was analyzed by Ward method in the first step to achieve best results, then k-means method was used for the same data, in order to verify whether the indicated social model groups are similar in both analysis and have a similar interpretation.

3. Results

In order to identify existing social model clusters of enlarged EU, analysis results of hierarchical and K-means cluster analysis was used and five clusters were identified (Table 1).

Table 1. Identified EU social model clusters

<table>
<thead>
<tr>
<th>I cluster: new EU states</th>
<th>II cluster: old EU states</th>
<th>III cluster: Central Europe and the Islands EU states</th>
<th>IV cluster: Scandinavian countries and other EU states</th>
<th>V cluster: fallen EU states</th>
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<tbody>
<tr>
<td>Bulgaria</td>
<td>France</td>
<td>Czech Republic</td>
<td>Netherlands</td>
<td>Greece</td>
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<td>Estonia</td>
<td>Germany</td>
<td>Slovenia</td>
<td>Finland</td>
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<td>Latvia</td>
<td>United Kingdom</td>
<td>Slovakia</td>
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<td>Romania</td>
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<td>Poland</td>
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The results of a historical perspective shows that the first cluster consistently distinguishes the new EU member states. Many authors and researches note the same level of development of these countries, the similar economic pace and similar challenges.

The second cluster (France, Germany, England, Austria, Luxembourg and Italy) consists of long-standing membership in the EU countries, some of them have the largest and most stable economies in EU. This cluster mainly is dominated by the Rhine lands social model countries.

The third cluster is composed of different regions, there are mixed the new EU members from Central Europe and European islands, as Cyprus and Malta. It is difficult to assign a specific social model to this cluster.

The fourth cluster consists of more northern countries, the Scandinavian group with institutional distributional model and the Anglo-Saxon Ireland.

The fifth cluster distinguishes three southern states that had a big residual effects of the last economic crisis and still are trying to recover. Of course, the declining economy has responded to social performance, increased poverty rate, unemployment rate, this directly affects empirical research results and comparison these with the other countries.

Table 2 shows the average statistical indicator of each identified social model clusters. Comparison of statistical indicators of each cluster shows that the cluster of new members stands out in all indicators: the least expenditure on social protection (% of GDP), the lowest unemployment rate, the highest poverty risk index, the lowest distribution of income index. The second cluster - the old EU member states - has a larger share of GDP on social protection and income distribution is in the highest level. The lowest unemployment rate is in the Central European and Scandinavian countries clusters, but the Scandinavian and other member cluster has a more even distribution of income according to the index. Fallen members of the EU (V cluster) is characterized by a large share of GDP for social security, but the lack of an even distribution of income.

Table 2. Indicated EU social model clusters statistical indicators
4. Conclusions

Literature analysis showed that up to now authors strongly support a classification system proposed by Gosta Esping-Andersen for the analysis of the welfare state in Europe. He distinguished liberal, conservative corporate and socialistic social democratic models.

The European Union development have progressed to pay a high priority for social policy in the European Union every day policy. Although European Union members have many differences between each other in social model types, they all develop their economies with sociability criteria - ensuring a high level of employment, guaranteeing adequate social protection, good education and the quality of human health through programs that reduce social exclusion and poverty.

European Union social model distinguishes these groups of welfare countries, which belong to the old continent's countries: the Rhine lands, Anglo-Saxon, Mediterranean and North models. Models manage different social security priorities and fund allocation methods, also differently highlight the key social support groups.

Many authors attribute Lithuania as a conservative corporate-social model country, others add marginalized model features, but there is no consensus between them.

The performed hierarchical cluster analysis and k-means cluster analysis, also comparison of each indicated cluster socio-economic indicators with Lithuania indicators confirm that at this point it is still difficult to identify the Lithuanian social model among other European Union members. Lithuanian socio-economic indicators in cluster analysis assigned Lithuania in the same cluster as other new EU members, most of whom, like Lithuania, the post-communist regime countries.

Statistical comparison of the data with the European social welfare model has shown that the old European Union countries have a greater development in the social policy, and in this context Lithuania still looks like searching for the right social model EU newcomer.

References


