

In and discover the  
flows of influence



**ASSIGN  
BUSTER**

In the modern society, the informal relationships between political leaders and their political decisions often becomes interdependent. For instance, the links between political actors or the groups of interests in the parliament can have a significant impact on their legislative activities. Therefore, the network analysis methods become more and more relevant for the research of political ties structure. The social network analysis is a modern quantitative method of discovering the formal and informal organizational structures with the help of digital instruments. This research aims to analyze the interdependence between political decisions and private connections between the political actors and discover the flows of influence among different parliamentary groups. The study focuses on the structure of Ukrainian Parliament representatives' network in the context of their joint work on the legislative bills.

The main goal of this research is to describe the social network of deputies and show the dynamics of legislative ties structure, in accordance with the formation of new parliamentary factions. Methodology Using the network analysis methods allows considering the social structure as a network, formed by the actors and different types of connections between them. Network analysis often helps to explain political decisions, considering the belonging of the politicians to the formal or informal groups, and identify the most influential actors. This method provides a new set of explanatory models and analytical tools that go beyond the usual quantitative analysis methods.

Empirical material The social network includes 445 members of Ukrainian Parliament, selected as representatives at the parliamentary elections in

2012. During the data collection stage, I examined 4067 legislative bills, which were submitted in the period from December 2012 to January 2014. The next step was forming a two-dimensional binary matrix that reflects the ties between politicians and legislative bills. Then this matrix was transformed into the one-dimensional matrix, which reflects the connections between the politicians, based on joint legislative activities. With the help of NetDraw software, I visualized the graph, where the nodes refer to actors and the ties refer to the connections between them. Density One of the basic network characteristics is density, which is calculated as the number of available connections in the network divided by the number of all the potential connections. The density value of this network is 0, 054, which means that the parliament representatives implement only 5.

4% of all possible ways of cooperation in the network."Core-periphery model The core-periphery model identifies subgroups of actors who have a high density of connections among themselves (core) and other groups that have a very low tie density between both core and peripherals. In the provided network, the " core" included seven actors, and others were classified as the " periphery". The density of connections is 61. 57% in the " core" and only 0. 09% in the " periphery" group. The analysis demonstrated that " core" actors interacted mostly in the Committee on State Building and Regional Policy and the Committee on Culture and Spirituality."New factions' formation The revolutionary protests in Ukraine in 2014 or so-called " EuroMaidan" led to the collapse of the " Party of Regions" faction, associated with the President Victor Yanukovich.

Because of that, there were formed the new parliamentary factions, which significantly influenced the network structure. This led to the occurrence of a new parliamentary majority and allowed to identify a group of “conservators”, who remained in the old factions and “reformers”, who joined the new factions. The network analysis of deputies who left the faction demonstrated the correlation between the level of autonomy of politician and the probability of exiting the faction. Those representatives who collaborated with members of various parliamentary factions experienced less restrictive influence from their faction, so they were more likely to leave if they disagreed with the party’s political direction.

Needless to add that the region of residence significantly affected the politicians in their decision to join the new parliamentary faction. The analysis showed that representatives from the East were more likely to unite in the new factions and cooperate closer between themselves. However, the attributes of age and gender were not significant in the formation of new parliamentary associations.