Strategy for primary processing of social networks data using hierarchy analysis method

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We propose a strategy for investigating clustering analysis methods applied to analyze social network users’ communities with the help of the Analytic Hierarchy Process (AHP). One considers the following methods of cluster analysis: Weighted pair group average method, Unweighted pair group centroid method, Ward method, K-means, G-means, Minimum spanning tree. It is planned to examine six alternative methods of cluster analysis (A1-A6).
Here you see the results. Based on the calculations made, it can be concluded that the G-means method is the most preferable for use, and the worst alternative for these quality criteria and the presented weight sets is the Weighted pair group average method.
• However, it should be taken into account that a significant factor affecting the quality of the results of this strategy is the initial choice of weights in pairwise comparisons of criteria and alternatives, as a result of which the expert may make an error.

• In this regard, the introduction of an additional method of voting by experts, such as the “Delphi” method, will reduce the risk of incorrect prioritization.

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Thank you for attention!