Abstract

Inequality of regional development is a global problem and faced by many countries, including Indonesia. Various attempts were made to reduce inequality in the region, one of them is by analyzing the imbalance with appropriate methods that can be used as a basis for policy making prioritization of future development. Klassen methods typically used to analyze the inequality of the region according to the indicators Gross Regional Domestic Product (GRDP). However, the division of the region inequality using Klassen deemed too rigid, given the existence of a possible relationship between the regions and in each of the groups formed by Klassen. This research aims to develop a new approach that can be used to analyze the inequality of development of the region. Agglomerative cluster hierarchical cluster technique modified with Klassen named Modified Agglomerative Hierarchical Clustering with Klassen (MHACK). The results shows that the use of algorithms MHACK, besides being able to classify the area into four main clusters, are also capable of forming the new group hierarchy for each region in each of the main cluster. Cophenet distance coefficient showed that MHACK algorithm has 0.9950 for
Quadrant I, and 0.9154 for Quadrant II. In addition, the city of Magelang is indicated as an advanced and rapidly growing region with a poor value of GRDP, while Cilacap, Kudus, Boyolali, Brebes and Wonogiri indicated as a potential and growing region but has the worst value of GRDP.

References

Analysis: The Example of East Germany. Laporan Penelitian Institute for Economic Research Halle (IWH)


Index Terms

Computer Science

Pattern Recognition

Keywords

inequality of development, GDP, Klassen, agglomerative hierarchical clustering, MHACK.