Abstract

Regional development classification is one way to look at differences in levels of development outcomes. Some frequently used methods are the shift share, Gain index, the lindex Williamson and Klassen typology. The development of science in the field of data mining, offers a new way for regional development data classification. This study discusses how the decision tree is used to classify the level of development based on indicators of regional gross domestic product (GDP). GDP Data Central Java and Banten used in this study. Before the data is entered into the decision tree forming algorithm, both the provincial GDP data are classified using Klassen typology. Three decision tree algorithms, namely J48, NBTRee and REPTree tested in this study using cross-validation evaluation, then selected one of the best performing algorithms. The results show that the J48 has a better accuracy rate which is equal to 85. 18% compared to the algorithm NBTRee and REPTree. Testing the model is done to the six districts / municipalities in the province of Banten, and shows that there are two districts / cities are still at the development of the status quadrant relatively underdeveloped regions, namely Kota Tangerang and Kabupaten Tangerang. As for the Central Java Province, Kendal, Magelang, Pemalang, Rembang, Semarang and Wonosobo are an area with a quadrant of development also on the status of the region is relatively underdeveloped. Classification model that has been developed is able to classify the level of development fast and easy to enter data directly into
the decision tree is formed. This study can be used as an alternative decision support for policy makers in order to determine the future direction of development.

References

- Vincze, Maria and Mezei, Elemer. 2011. The increase of rural development measures efficiency at the micro-regions level by cluster analysis: A Romanian case study. Eastern Journal Of European Studies Volume 2, Issue 1, June 2011
- Bresfelean V. P., Bresfelean, M., and Ghisoiu, N. , 2008, Determining Students’ Academic Failure Profile Founded on Data Mining Methods, Conference Proceeding of 30th
Regional Development Classification Model using Decision Tree Approach

International Conference on Information Technology Interfaces, 2008, Page(s) : 317 – 322

Index Terms

Computer Science
Algorithms

Keywords
Classification GDP J48 NBTree REPTree cross-validation.