

# **Clustering Analysis in Regional Development Recommendation Systems**

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## **ABSTRACT**

Performance assessment and provincial rankings are important steps in formulating development and crime prevention policies at the regional level. This research proposes an integrative approach that combines clustering and Multi-Attribute Group Decision Making (MAGDM) methods to analyze provincial rankings based on development and crime data in Indonesia. This research approach uses a combination of the K-Means clustering algorithm to group similar provinces and the TOPSIS method to summarize the provinces in each cluster. The data used are technology development indicators (IPT), human development index (IPM), and crime indicators (IK) from 34 provinces in Indonesia. The results of the analysis produce provincial rankings that provide insight into inter-provincial variability in the context of development and crime. These findings can be used as a basis for developing more targeted policies in an effort to increase development and tackle crime at the regional level

Kata Kunci: *Clustering Analysis, Regional Development, Recommendation Systems*