PENGELOMPOKKAN PROVINSI DI INDONESIA BERDASARKAN INDIKATOR KRIMINALITAS NASIONAL MENGGUNAKAN ALGORITMA *K-MEANS* DENGAN METODE *DAVIES BOULDIN INDEX*

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ABSTRAK

Kriminalitas adalah perbuatan yang merugikan korban, juga masyarakat karena fenomena ini menghilangkan rasa aman pada kehidupan sosial. Tingkat resiko terkena tindak kejahatan (*crime rate*) pada tahun 2018 sebesar 113.000 penduduk. Melihat resiko terkena tindak kejahatan masih tinggi perlu dibuat sebuah pengelompokkan data kepolisian daerah provinsi di Indonesia agar dapat mengetahui tingkat terendah dan tingkat tertinggi pada Indikator Kriminalitas Nasional dengan mengukur menggunakan jumlah angka kejahatan (*crime total*), jumlah kejahatan yang telah diselesaikan (*crime cleared*), dan risiko penduduk terkena kejahatan (*crime rate*). Implementasi data *mining* menggunakan algoritma *K-Means* untuk mengelompokkan kepolisian daerah provinsi di Indonesia berdasarkan data Indikator Kriminalitas Nasional pada tahun 2018 melalui situs resmi Badan Pusat Statistik Indonesia, diperoleh cluster optimumnya dengan hasil 3 cluster berdasarkan indeks nilai *Davies Bouldin* sebesar 0,468 dari serangkaian pengujian dengan skenario 2 *cluster* sampai dengan 5 cluster. Sedangkan jumlah anggota pada masing masing *cluster* yaitu *cluster* 1 terdapat 2 provinsi, *cluster* 2 terdapat 28 provinsi, dan *cluster* 3 terdapat 4 provinsi.

Kata Kunci : Kriminalitas, *K-Means*, *Davies Bouldin*

GROUPING PROVINCES IN INDONESIA BASED ON NATIONAL CRIMINALITY INDICATORS USING K-MEANS ALGORITHM WITH DAVIES BOULDIN INDEX METHOD

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ABSTRACT

Criminality is an act that is detrimental to the victim, as well as society, because this phenomenon eliminates the sense of security in social life. The level of risk of being exposed to crime (crime rate) in 2018 was 113,000 people. Seeing that the risk of being exposed to crime is still high, it is necessary to make a grouping of provincial police data in Indonesia in order to find out the lowest and highest levels of the National Crime Indicator by measuring using the number of crimes (total crime), the number of crimes that have been resolved (crime cleared), and the risk of the population being exposed to crime (crime rate). The implementation of data mining uses the K-Means algorithm to group provincial police in Indonesia based on National Crime Indicator data in 2018 through the official website of the Indonesian Central Statistics Agency, the optimum cluster is obtained with 3 clusters based on the Davies Bouldin value index of 0.468 from a series of test scenarios 2 clusters up to 5 clusters. While the number of members in each cluster, namely cluster 1 has 2 provinces, cluster 2 has 28 provinces, and cluster 3 has 4 provinces

Keyword : *Criminality, K-Means, Davies Bouldin*