ABSTRACT

One indicator for assessing progress of country is economic factor, as poverty is issue faced by almost every nation. Poverty defined as individual's inability, from economic perspective, to meet basic food and non-food needs as measured by poverty line. One approach to analyzing severity of poverty conditions in regions of Indonesia is through clustering districts/cities in Indonesia based on number of poor residents. This study will apply Partitioning Around Medoid (PAM) and Clustering Large Application (CLARA), with Euclidean distance, to group districts/cities in Indonesia. PAM uses a medoid, which is the object most centrally located within a cluster, making it more effective in handling outliers. CLARA takes a sampling approach, then applies PAM within the sample to find the best medoid. Validation of clustering results can be done using Davies Bouldin Index (DBI). Lower values indicate more optimal clustering results. Based on DBI, the best number of clusters for the PAM and CLARA is 3 cluster and 4 clusters, respectively, with DBI values of 1.610604 and 1.647644. The results of this study show that the best grouping of districts/cities in Indonesia, based on data of poor residents, is 3 clusters using the PAM algorithm.

Keywords: *Poor residents, Cluster Anlysis, PAM, CLARA, Euclidean, Davies Bouldin Index*