ABSTRACT

The method of Hybrid K-Means Fuzzy C-Means is a combined clustering method between K-Means and Fuzzy C-Means. This method is calculated using K-Means and continoued with Fuzzy C-Means. This method enables the final centroid of K-Means to form a membership matrix value for Fuzzy C-Means and produces a higher validation value compared to the previous using of the method before the hybrid. In cluster analysis, an object is assembled into the same characteristics. This research discusses SDGs 6 regarding water sources and proper sanitation. The availability of clean water and sanitation is very crucial for needs of life. The data based on publication Badan Pusat Statistik (BPS) regarding access to water sources and proper sanitation from 34 provinces in Indonesia based on the Indonesian Sustainable Development Goals (SDGs) indicators or Tujuan Pembangunan Berkelanjutan (TPB) Indonesia. The cluster evaluation is accomplished using Silhouette Coefficient validation. The optimal cluster is determined from the cluster validation value that is closest to 1. The results of the analysis show that the optimal cluster is on cluster $(k) = 5$ with a Silhouette Coefficient value in the amount of 0.4790594.

Keywords: *Clustering, Fuzzy C-Means, Hybrid, K-Means, Silhouette Coefficient,* Sumber Air dan Sanitasi Layak