ABSTRACT

KAMAL AFIAT. Customer Segmentation of PLN UPJ East Bogor Region Using Fuzzy C-Means; Under the direction of ANNISA.

Electricity is a very crucial source of energy nowadays. This is proven by the increase of PLN customers every month. The increasing number of customers and the use of electricity should be followed by increasing the quality of service. PLN can make a better decision to increase its service by knowing its customer’s segmentations. The data of electricity usage is periodically kept by PLN and can be used for customer segmentation analysis. Customer segmentation can be conducted using clustering method such as Fuzzy C-Means algorithm. After the segmentation has been done, the characteristics of electricity usage of each segment can be identified, and the distribution of each segment can be visualized on a map to make it easier to see the distribution of each segment from its spatial aspects. The clustering process in this research is used four clusters, which represent the usage level, which are low class, medium class, high class, and very high class. As the result of the research, we found out that the low class users are the majoring, whereas the high class has the least users. Areas that have users from all segments are Babakan, Bantarjati, Baranang Siang, and Kedung Halang.

Keywords: data mining, clustering, segmentation, fuzzy c-means