Abstract

Nowadays, the amount of customer information that companies have, has increased significantly. Data mining can be used to retrieve valuable informations that are previously unknown to retrieve the customer characteristics. These informations can be used by the company to effectively carry out customer management. This final project implements one of the techniques in data mining, which is clustering to execute customer segmentation and analysis. The clustering method that is used is Fuzzy C-Means Clustering. Fuzzy C-Means Clustering is a fuzzy clustering technique where each data membership in a cluster is determined by a membership degree. Because clustering is an unsupervised method, cluster validity index is used to analyze the quality of the segmentation results.The testing results shows that Fuzzy C-Means Clustering can be used for customer segmentation. However in defining cluster validation using cluster validity index for fuzzy clustering, it is necessary to use a variety of input parameter for defining the optimum segmentation results.

Keywords: *data mining, fuzzy c-means, clustering, customer segmentation, cluster validity index*