ABSTRACT

Every year the use of operators in Indonesia is increasing. Based on data from the Ministry of Communication and Information, the number of cellular phone subscribers in Indonesia has reached 319.5 million subscribers. PT Indosat Ooredoo Hutchison (Indosat) is in the second position with the most subscribers. In 2017, Indosat customers experienced an increase which peaked in December 2017 at 110.2 million subscribers. However, in 2018 Indosat experienced a 10% decrease in September bringing the total number of subscribers to 64.1 million. This needs to be followed up by understanding the characteristics of its customers so that it can be used to implement the right retention strategy that brings benefits to the company. One way is customer segmentation. One way to segment customers is to use data mining with clustering using the k-means algorithm and the formation of clusters is based on the RFM (Recency, Frequency, and Monetary) model. The goal is customer segmentation and knowing the characteristics of customers in each segment. The Elbow method is used to determine the optimal value of k. And silhouette is used for cluster quality testing. As a result, there are 3 segments, segmentation 1 totaling 233 customers who have loyal customers, segment 2 totaling 70 customers who have customer class customers needing attention, and segmentation 3 totaling 697 customers who have customer class, recent customers.

Keywords: Customer segmentation, data mining, clustering, RFM model, k-means algorithm