

ABSTRACT

According to business competition and business potential in the logistics sector, PT. Dakota Cargo Tasikmalaya needs to segment customers to retain existing customer and increase company profits. To respond these conditions, company could establishing a good relationship with customers by doing Customer Relationship Management (CRM). In this study, customer segmentation was carried out using K-Means Clustering algorithm based on LRFM model. The purpose of this study is to segment customers using the K-Means Clustering based on LRFM model at PT. Dakota Cargo Tasikmalaya. The data used in this study comes from transaction data of 2256 customers of PT. Dakota Cargo Tasikmalaya. The stages of problem solving in this research start from preliminary studies, literature studies regarding theories related to the topic of customer segmentation with K-Means Clustering using the LRFM model, problem identification and formulation, determination of research objectives and limitations, data collection, data processing, analysis of customer's characteristic until conclusions and suggestions. Data processing starts from determining research methods, selecting variables for customer segmentation, cleaning and transforming data, forming LRFM variables, normalizing LRFM variables, determining optimum k using the elbow method, customer segmentation using K-Means Clustering and customer segmentation evaluation using Davies-Bouldin Index. Based on segmentation results, 3 customer clusters were formed, they are cluster 0 as migrator, cluster 1 as the most valuable customer and cluster 2 as below zeros. The results of customer segmentation was validated by Davies-Bouldin Index (DBI), it was found that the smallest DBI value was owned by $k=3$. Companies can determine the right marketing strategy, determine customer priorities and allocate resources based on the segmentation results.

Keywords: Clustering, K-Means, LRFM Model, Segmentation