# ABSTRACT

*Request for laundry services has increased rapidly in Telkom education area, due to increasing the number of students in Telkom education area that finally causes competition in laundry services get tighter. In 2010 the customer number of Waroenk Laundry increases quickly and make it dominates the market with 38% market share. But, in 2012 its market share fell to 21% from 38% because many of its customers switched to another laundry service provider. Therefore, it needs customer loyalty program for potential customer that could increase customer satisfaction and loyalty.*

*Data mining is the process of analyzing data from different perspectives and summarizing it into useful information. RFM is a method to group the customers based on recency, frequency, and monetary attribute. K-means is one of clustering methods in data mining to group the customer based on similarity of the customer characteristics into k clusters that have been defined before. Combination of RFM and K-Means results a higher cluster quality value to describe the characteristic of each customer cluster.*

*For modeling process using RFM, we use laundry data transaction. The result of RFM model is RFM score that will become a data input for modeling process using K-Means.*

*After modeling customer segmentation using three combination variable of RFM and K-Means, we'll get the number of optimal cluster that is three clusters for member customers and five clusters for non-member customers. Each cluster has a different level of RFM score. The first and fifth cluster of member and non-member customer is potential cluster to get customer loyalty program because have the highest RFM score among others. Other clusters will also get customer loyalty program that suitable for each cluster characteristic.*

*Key Words: RFM, K-Means, Customer Loyalty, Waroenk Laundry*