

## **ABSTRACT**

*Knowing potential customers that are in line with the target marketing, will help companies determine the right marketing strategy. In the process of launching the VOLTE product, PT. Telkomsel requires a Promotional strategy that is right on target to anyone should a Promotional SMS be given. Of the 5.4 million customers with Voice over Long-Term Evolution (VOLTE) Ready Handset, the number of eligible customers is determined to get the VOLTE Promotion so that Promotional costs can be saved for the company.*

*The purpose of this study is to explore customer buying behavior based on customer data of PT. Telkomsel and determine the segmentation of potential customers related to usage (VoLTE) at PT. Telkomsel. Henceforth the results of this data exploration will be used by PT. Telkomsel as consideration for giving Promotions to its customers.*

*Through the Model Recency, Frequency, Monetary (RFM) analysis method, customers are then grouped using the K-means algorithm. RFM data is mapped from customer billing data that contains MSISDN, last voice call as Recency, trx voice\_avg as Frequency and rev\_voice\_avg as Monetary. Before grouping with K-Means, the data is first grouped according to the type of Handset customer. Namely the VOLTE ready and Non VOLTE Handset.*

*The results of the study show that customer clusters can be formed in different ways based on customer behavior. The behavior patterns of Telkomsel customers can be identified using the RFM method and the K-Means clustering algorithm. Based on Handset type, Recency, Frequent and Monetary variables, Telkomsel customer profiles can be distinguished from one another. Every customer has a different profile. Of the 10,000 customer number data provided by PT. Telkomsel, found 11 different segments, they are High Volte, Medium Volte, Normal Volte, Low Volte, Very Low Volte, High NonVolte, Medium NonVolte, Normal NonVolte, Low NonVolte, Very Low NonVolte, Null data*

*Based on the results of the research, this research method can be used by PT. Telkomsel as a way to choose which customers are eligible for VOLTE Promotions. Use another cluster algorithm and request additional data from Pt. Telkomsel is recommended for the next study.*

*Keywords: Recency, Frequency, Monetary, RFM, K-Means*