

## ABSTRACT

Telkomsel runs thousands of campaigns every month by targeting High Value Customer (HVC), however the result proven to have a limited level of personalization. Based on Telkomsel data, 87 trillion rupiahs of Telkomsel *revenue* is consist of 52% contributed by HVC that coming from 14% of total customers. Nevertheless, the take up rate of product campaigns conducted on the HVC segment is still low (around 4.5%). On the other hand the "One-product-for-all" solution is no longer accepted, because customers developed to more demanding and looking for personalized products and services that meet to their needs. As response, an enhanced HVC segmentation scheme in accordance with Contextual Marketing is formed by adding the number of behavioral attributes.

This study aims to determine the effect of adding customer behavior attributes towards take up rate, specify HVC segmentation along with the profile formed, and determine the contextual campaign strategy that is suitable for HVC Telkomsel subscriber by matching existing products with new segments.

In this study, authors apply the theory approach of Customer Segmentation, Customer Profiling, Customer Behavior and Contextual Marketing. Data were collected by using historical data of HVC Telkomsel subscriber transactions, then it was analyzed by using SPSS Modeler software with K-Means clustering algorithm & Logistic Regression. All analysis process is done in internal Telkomsel and use Telkomsel Data Mining system. The segmentation processed by utilizing 10 attributes consists of Length of Stay, Data User Flag and 8 additional attributes based on customer behavior.

Clustering give information result when 8 behavior attributes added it can intensify campaign effectiveness as showed in increase of 3,86% take-up rate. As well as obtained 5 new segments consist of customer with characteristics: Data User Heavy on Internet with High Recharge (29,0%), Loyal customer, heavy on Voice and SMS with Medium Recharge (22,3%), Normal usage with High Recharge (18,5%), Customer Heavy on Voice and SMS with medium Recharge (20,7%), and Value Customer, Heavy on Internet and Voice with High Recharge (9,6%). Campaign strategy is done by matchmaking existing product with the characteristics and behavior of each segment.

In determining the customer segment and prediction result of the model, Telkomsel could utilize the K-Means clustering and Logistic Regression method as one of the methods and tools used. Therefore campaign activities through product offerings to customers can be more effective and efficient. Moreover, the historical data can be used as a reference in determining customer behavior in making purchases and use of products.

**Keywords:** *K-Means Clustering, Logistic Regression, Contextual Marketing, Customer Profile, Customer Segmentation*