**ABSTRACT** 

Telkomsel currently has 3 prepaid brands: simPATI, kartuAs and LOOP and 1 postpaid

brand: kartuHalo. To maintain customer loyalty in order to continue to use its services,

Telkomsel created loyalty program to customers through Telkomsel POIN. The ratio of

customers who have redeemed poin is only 13% per year from the total customers owned by

Telkomsel, whereas when compare to LoS (Length of Stay), customers who redeem poin have

an average LoS of 6.75 years and customers do not redeem poin have an average LoS of 3.32.

This means that if the customer has redeemed poin, the more possibility that customer will be

more loyal to Telkomsel.

In this thesis, a study was conducted using K-Means Clustering to obtain segments from

every customer who redeem Telkomsel POIN. Overall, the features used to create clusters are

frequency of redeem, number of poin redeemed, brand, tier, LoS, frequency of redeem in certain

categories, number of poin redeemed in certain categories, age and gender. For marketing

strategy, in this thesis using marketing mix in order to be able to provide an offer that suits the

customer.

By using shilouette index as an indicator of cluster evaluation, an index of 0.4 is

obtained. The results of this thesis, there are 5 cluster of Telkomsel prepaid customers in the

Jabotabek Regional namely Potential Redeemers, Digital and High Value Redeemers, Legacy

Redeemers, Merchandise Hunter and Youth and Broadband Redeemers. For the marketing

strategy is determine 4P namely Product, Price, Promotion and Place. Product, service or

product of poin offered to customers. Price, the conversion cost against 1 poin redeemed by

customer. Promotion, the media / approach used to interact with customers. Place, a place /

location used to interact with customers.

Keywords: Telkomsel POIN, Clustering, K-Means

٧