

ABSTRACT

Telkomsel has been transforming to be digital company & one of the program by commercial launching MyTelkomsel Apps on March 26th 2016 as Telkomsel digital channel. MyTelkomsel Apps assist customers to do online self service i.e purchasing data package in MyTelkomsel Apps. Nevertheless, the conversion rate of the active user MyTelkomsel Apps become data packages purchaser in MyTelkomsel Apps is still low. So the problem faced is how to increase the number of data package purchaser in MyTelkomsel Apps.

The objective of research is to build insight for Telkomsel on predict customers who likelihood to purchase monthly data package in MyTelkomsel Apps by leveraging predictive analytics. Therefore could be identified customer profile & significant variable of customers who likelihood to purchase monthly data package in MyTelkomsel Apps.

Logistic regression used to predict customers who likelihood to purchase monthly data package in MyTelkomsel Apps using 29 numeric variables input. Analytics based table generated from total population of monthly data package purchaser in MyTelkomsel Apps as of Dec 31st 2017 by 132.585 customers and create random sampling of non monthly data package purchaser in MyTelkomsel Apps by 57.234 customers out of 3.124.388 customers. Analytics based table splited into 2 data sets, 70% training data set and 30% testing data set represent of both monthly data package purchaser and non purchaser in MyTelkomsel Apps. Based on training & testing data set by 189.819 customers, 141.043 customers are predicted likelihood to purchase monthly data package in MyTelkomsel Apps with model accuracy reached 79%. Top 5 significant variables that affected customers to purchase monthly data package in MyTelokmsel Apps are recharge amount, data usage, number day of data, number day of MyTelkomsel Apps and number day of SMS.

After buiding development model then applicated into all population of MyTelkomsel Apps user by 2.985.857. There were identified 1.228.652 customer who highly likelihood to purchase monthly data package in MyTelkomsel Apps. K-Means clustering used to build customer segmentation and 3 different clusters were formed: low high value & data addicted customers (45,8%), low value & traditional customer (17,6%), & normal user (36,6%).

Based on result of prediction model & clustering, behavioural targeting could be implemented to offer product gimmict more targeted.

Keywords : *Behavioural Targeting, Predictive Analytics*