## ABSTRACT

IndiHome is the only product owned by PT Telkom right now. With the existing bundling packages, contains telephone, tv, and internet, IndiHome is expected to provide solutions for the society, especially in eastern Indonesia such as the Maluku province. However, Telkom customers who haven't used IndiHome is still very high, so the problem is how to invite Telkom customers in Maluku province to do upselling for IndiHome products.

The purpose of this study is to provide insight to Telkom Maluku in predicting Telkom customers who have the potential to make upsell accurately using RFM techniques for classification.

The method of data collection is done by using the population data of Telkom customers in Maluku province from January 2018 to October 2019. The data is divided into 2 (two) data sets namely training data sets and testing data sets and then processed using random forest algorithm and naïve Bayes for determine how much potential customers upselling. Then the results of the prediction will be segmented to help PT Telkom determine the focus of how this IndiHome product can be used by all Telkom customers in Maluku province.

Based on the prediction model, the evaluation obtained in the customer prediction is reach 95%. From the research also obtained suitable recommendation in accordance with customer characteristics.

*Keywords*: *RFM*; *upselling*; *upsell*; *classification*;