

## **ABSTRACT**

*According to kartuHalo sales, churn, and customer base report of retail segment within 5 years, there is increasing number of customer churned. The number who churned indicates retention programs has not yet reach its objective. Therefore a research regarding churn prediction model is needed to be the main source to plan retention program and decide which customer segment will the target.*

*This research utilizes data source based on Telkomsel data regarding customer behavior consist of total bill amount, voice usage, sms usage, and churn information. Those data is collected within a period of January – March 2018. Data mining is undergone by logistic regression modelling using SPSS data modeler.*

*The result of data mining using logistic regression modelling shows a sensitivity factor of 97,9%. It means the data modelling method able to predict churn accurately by 97,9%. Along with that, 5 significant variables to predict churn are average voice usage to Telkomsel, device changing behavior, average voice usage to other telecommunication provider, average bill amount, outstanding bill.*

*Keywords: Customer Retention; Big Data Analysis, Logistic Regression, Churn prediction and churn score*