ABSTRACT

HERU WIBOWO, 3125120198. Overdispersion in Logistic Regression Using The Beta Binomial Methods. Thesis. Faculty of Mathematics and Natural Science. Jakarta State University. 2017.

Logistic regression measures the relationship between the categorical dependent variable and one or more independent variables. Overdispersion often occurs in modeling binary data caused by variability of experimental material and the correlation between individual responses. When the observed variance is higher than the variance of a theoretical model, overdispersion has occurred while in logistic regression observed variance as same as variance of theoretical model. The Beta Binomial method results from a beta distribution mixture of binomials is good enough correcting diversity on the data indicated overdispersion.

Keywords: Overdispersion, Binary Logistic Regression, Beta Binomial Method.