There are several reasons and considerations which influence passengers in determining their choice of transportation mode. The competition between intermode is affected by characteristic and reliability of the mode itself. In order to improve and increase services of transportation mode, it is necessary to figure out the characteristics of the passengers. The objectives of this research are to figure out the characteristics of passengers of Gajayana Train and Executive Bus for the route of Jakarta-Malang, to determine factors that influence the mode choice, to obtain a model that explains probability of mode choice between Gajayana Train and Executive Bus, and to find out model sensitivity from passengers’ response if there is a change on one of transportation attributes supporting the utility of mode choice.

The collection of data on mode choice is conducted using survey and interview method on passengers of Gajayana Train and Executive Bus with the amount of samples of 300 respondents. Data analysis on model of mode choice is carried out using binomial logit model, and estimation of model parameter is carried out using regression analysis.

Based on the results of analysis, logit model is achieved for mode choice with variable’s of difference of traveling cost ($X_1$), the difference of traveling time ($X_2$), the difference of departure delay ($X_3$), and the difference of access time ($X_4$) between Train and Bus. According to statistics test, it is concluded that the four factors are significant in influencing the respondents when choosing mode. Based on results of sensitivity analysis, it is figured out that the less the differences of the four factors between Gajayana Train and Executive Bus are, the bigger the probability to choose Gajayana Train is.

Key words: mode choice, train, bus, passengers, logit model