

## **ABSTRACT**

*Semarang is the capital city of Central Java with the population density reaches 4.207 people/km<sup>2</sup>. The high rate of population density is followed by economic and population growth. Higher population growth will increase mobility. High mobility should be in line with adequate infrastructure. Semarang has transportation problems. They are traffic jam and lack of transportation facilities and other supporting tools that must be fixed. Due to these problems, government of Semarang launch mass transportation called Bus Rapid Transit (BRT) Trans Semarang. The objective of this research is to analyze the impacts of income, trip expenses, distance from home, safety and pleasure factors, and punctuality factor to the probability of selecting Bus Rapid Transit (BRT) Trans Semarang mode and other public transportations within Terboyo-Sisemut route.*

*This research is conducted by spreading questionnaires of 100 samples, allotted to passengers of BRT Trans Semarang and other public transportations in Terboyo and Sisemut bus stations. The sampling technique is purposive sampling and accidental sampling. This research uses Binary Logistic Regression model with dichotomy dependent variable, which is 1 for BRT Trans Semarang and other public transportations. Binary Logistic Regression model is done to find out the impacts of independent variable of income, trip expenses, distance from home, safety and pleasure factors, and punctuality factor to dependent variable of selection of BRT Trans Semarang mode and other public transportations.*

*The result shows that selection of BRT Trans Semarang mode and other public transportations within Terboyo-Sisemut route is dominated by 86 respondents for BRT Trans Semarang and 14 respondents for other public transportations. Income, distance from home, safety and pleasure factors, and punctuality factor variables are positively influential for mode selection. While trip expenses is negatively influential for BRT Trans Semarang mode and other public transportations.*

**Keywords: Bus, Transportation, Preference, Semarang**