ABSRACT

The development of new residential areas can lead to increased travel activity, known as trip generation. This study aims to analyze the magnitude of trip generation occurring at Grand Sememi Residence, Deli Tua, and to examine the influence of residents' socioeconomic characteristics on the number of trips generated. Primary data were collected through questionnaires distributed to 70 household heads, covering variables such as number of family members, number of vehicles, and household income. The analysis was conducted using simple linear regression and multiple linear regression methods to determine the relationship between the independent variables and the number of trips. The results showed that the number of vehicles had the most significant influence on trip generation. Although the multiple regression model was not statistically significant overall, the results are still presented as an initial reference in the development of transportation planning models in residential areas. These findings are expected to serve as input for transportation planners and housing developers in designing efficient and sustainable transportation systems.

Keywords: Trip generation, residential area, linear regression, Grand Sememi Residence, transportation