## SUMMARY

Fatihatul Jannah, Department of Urban dan Regional Planning, Faculty of Engineering, University of Brawijaya, Februari 2016, *Moda Choice Between Personal Vehicle (Car and Motorcycle) and Train Malang-Surabaya Route*, Supervisor: Imma Widyawati Agustin, ST., MT., Ph.D. and Dadang Meru Utomo, ST., MURP

Over time, the scope of transportation problems has been expanded and severe in both the developed and developing countries. In the span of 2010-2013 years an increasing number of vehicles in East Java reached 8,41%, but only accompanied by an increase in long-infrastructure, at 3,52%.

As a solution to the problems of traffic density in East Java, the railway is the transportation mode that was developed, but on the exsisting condition the train has not been used optimally, so that the required analysis of probability of movement of the train to find out modeling modal choice of travelers Malang-Surabaya which could be used to predict the modal transfer from private cars to the train so that later can be used to predict the increasing use of the railway.

This study uses Descriptive Statistics Analysis and Multinomial logit analysis. Based on the results of the analysis Multinomial Logit obtained modeling modal choice variables that significantly influence the modal choice is the Travel Destination ( $X_{Destination}$ ), Time Movement ( $X_{Time}$ ), Long Journey ( $X_{Long}$ ), and travel ( $X_{Travel}$ ), Income ( $X_{Income}$ ), Family Structure ( $X_{FamilyStructure}$ ), Lifestyle ( $X_{Lifestyle}$ ), Job ( $X_{Job}$ ), Movement Frequency ( $X_{Frequency}$ ), Length of Journey ( $X_{Length}$ ), Travel Costss ( $X_{Costs}$ ), Security of Train ( $X_{Security}$ ), Safety of Train ( $X_{Safety}$ ), Ease of Train ( $X_{Ease}$ ), consistency time of Train ( $X_{Consistency}$ ), Equality of Train ( $X_{Equality}$ ), Availability Route of Train ( $X_{AvailabilityRoute}$ ), Headway of Train ( $X_{Headway}$ ), Policies Fees of Vehicle Tax ( $X_{Tax}$ ), Policies Fees of Drive License Making ( $X_{DriveLicense}$ ), Policies Fees of Parking( $X_{Parking}$ ), Policies Subsidy of Train ( $X_{Subsidy}$ ), and Policies of Personal Vehicle Ownership Restriction ( $X_{Restriction}$ ).

Based on the results of the displacement probability can be seen that the odds shift from private vehicles to the railway will be at maximum condition reached 86.16% if the value of service and the policy value is maximized. So instead, the train services that exist on the exsisting condition must be maximized by adjusting service standards the railway and transport policy was tightened in the implementation, such as the procurement of the Electronic Road Pricing (ERP) and vehicle taxes are made expensive and progressive in order to bind the traveling performers in use of private vehicles that ultimately the traveling public would prefer to use the train as compared to private vehicles.

## Keywords: Car, Moda Choice, Motorcycle, Multinomial Logit Analysis, Train