DIRECTION OF LAND USE INTENSITY
ARRANGEMENT BASED ON TRIP GENERATION IN
THROUGHT OF DAENDELS ARTERY STREET OF
TUBAN TOWN

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Abstract

Land use in throught of Daendels artery street of Tuban town Tuban is commerce area which have the biggest trip generation if it is compared with the other land use. Besides that, there is not direction of land use intensity arrangement can generate the local traffic which bothering the through traffic. So, direction is used to control land use which generate the traffic.

The aim of this research is compiling direction of land use intensity for controlling generation of the land use. So, this direction will considerate trip generation analysis.

In this research, Daendels artery street is divided be 3 categories based on the homogeneity of land use. Each category is analysed with regresi analysis so can be got regresi model which show the criteria is influenced of trip generation. The regresi model are model for commercial, public facility, and open space area is \( Y = 4,12 \cdot 10^{-17} + 0,333 X_1 + 0,612 X_2 + 0,002 X_3 \); model for commercial and settlement area is \( Y = 3,5 \cdot 10^{-16} + 0,682 X_1 + 0,060 X_2 + 0,279 X_3 \); and model for commercial area is \( Y = 2,69 \cdot 10^{-16} + 10,353 X_1 + 10,876 X_2 \); which \( X_1 \) is wide of base floor, \( X_2 \) is wide of floor, dan \( X_3 \) is intensity of people in a building.

This compilation of direction of land use intensity arrangement is done on 2 scenarios which reckoning
transportation system plan. On scenario A, there is not plan which change transportation system, so Daendels street of Tuban town is remain as artery street and the target is reach level of service is B and maksimal of degree saturation is 0,7. While, on scenario B, there is ring-road plan in south side of Tuban town based on Review RTRW Kabupaten Tuban 2009-2029, so Daendels street of Tuban town is turning into sekunder collector street and the target is reach level of service is C and maksimal of degree saturation is 0,8. The compilation of direction of land use intensity arrangement use simulation technique with solver on application program of excel based on regresi model of each land use category.

The result of solver simulation for scenario A of KDB is 80%, KLB 1,4 and amount of building floor is 2. While, for scenario B is value maksimum of KDB is 80%, KLB 1,4 and amount of building floor is 5.

Key words: land use intensity, trip generation, solver simulation