

Kajian karakteristik dan perilaku lalu-lintas angkutan umum jenis minibus dan pengaruhnya terhadap kinerja lalu-lintas (studi kasus Jl. Ciledug Raya)

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Abstrak

Kerugian ekonomi akibat kemacetan lalu lintas di wilayah Jabodetabek mencapai Rp.3 triliun/tahun untuk biaya operasi kendaraan dan Rp. 2,5 triliun/tahun untuk waktu perjalanan. Dalam rangka menanggulangi permasalahan transportasi, termasuk kemacetan lalu-lintas di wilayah Jabodetabek, studi SITRAMP (2004) merekomendasikan perlunya program pengembangan angkutan umum. Rekomendasi ini perlu dicermati, mengingat adanya opini sebagian masyarakat yang menganggap angkutan umum khususnya jenis minibus (angkot) tidak efisien dan merupakan biang keladi kemacetan. Penelitian ini bertujuan mengkaji karakteristik dan perilaku angkutan umum jenis minibus dan pengaruhnya terhadap kinerja lalu-lintas, mengkaji karakteristik desain lingkungan sekitar dan pengaruhnya terhadap perilaku lalu-lintas, serta memberikar saran/masukan dalam penanganan masalah lalu-lintas. Sebagai studi kasus diambil segmen ruas jl. Ciledug Raya depan CBD Ciledug Mall, kota Tangerang.

Pengumpulan data perilaku lalu-lintas dilakukan melalui pengamatan video kamera. Metode analisa yang digunakan adalah analisa korelasi, regresi, dan analisa deskriptif. Hasil analisa menunjukkan bahwa angkutan umum minibus memiliki perilaku lalu-lintas yang unik untuk setiap trayeknya, dan mempunyai pola berbeda untuk setiap arah pergerakannya. Motiv ekonomi, faktor kebiasaan, sistem budaya dan norma tidak tertulis yang berlaku di antara para pengemudi angkutan umum minibus, melatar belakangi perilaku lalu-lintas tersebut. Variabel load factor memiliki korelasi sedang terhadap variabel kecepatan angkutan umum minibus, dan variabel jumlah penumpang naik/turun memiliki korelasi kuat terhadap variabel rata-rata lama henti angkutan umum minibus. Pengaruh perilaku lalu-lintas angkutan umum minibus, meliputi: jumlah kendaraan berhenti, dan kecepatan rata-rata angkutan umum minibus mempunyai korelasi kuat dan sedang terhadap variabel kecepatan kendaraan pribadi roda-4 arus menerus. Desain bukaan median/simpang di lokasi studi tidak sesuai dengan standar geometri simpang yang ada, dan mengakibatkan konflik ruang gerak antara jalur lalu-lintas belok kanan dengan garis henti (stop line) arus lalu-lintas terlawan. Desain bukaan median juga tidak sejalan dengan adanya rambu dilarang belok kanan dan berputar bagi arus lalu-lintas dari arah jalan Ciledug Raya (Timur). Disarankan penutupan bukaan median, rehabilitasi fungsi terminal dan halte, evaluasi sistem perizinan trayek, dan penataan ulang trayek/rute angkutan umum.....Economic losses due to traffic jams in the Greater Jakarta area reach Rp. 3 trillion/year for vehicle operating costs and Rp. 2.5 trillion/year for travel time. In order to overcome transportation problems, including traffic congestion in the Greater Jakarta area, the SITRAMP study (2004) recommends the need for a public transportation development program. This recommendation needs to be observed, given the opinion of some people who think that public transportation, especially the minibus (angkot) is inefficient and is the cause of congestion. This study aims to examine the characteristics and behavior of minibus types of public transportation and their effect on traffic performance, examine the design characteristics of the surrounding environment and its influence on traffic behavior, and provide suggestions/inputs in handling

traffic problems. As a case study, the segment of the Jl. Ciledug Raya in front of CBD Ciledug Mall, Tangerang city.

Traffic behavior data collection is done through video camera observations. The analytical method used is correlation analysis, regression, and descriptive analysis. The results of the analysis show that minibus public transport has a unique traffic behavior for each route, and has a different pattern for each direction of movement. Economic motives, habit factors, cultural systems and unwritten norms that apply among minibus public transport drivers are the background of the traffic behavior. The load factor variable has a moderate correlation to the variable speed of minibus public transport, and the variable number of passengers getting on/off has a strong correlation to the variable average length of stopping of minibus public transport. The influence of minibus public transport traffic behavior, including: the number of vehicles stopped, and the average speed of minibus public transport has a strong and moderate correlation to the variable speed of continuous flow 4-wheeled private vehicles. The design of the median/intersection opening at the study site is not in accordance with the existing intersection geometry standards, and results in a conflict of movement space between right-turning traffic lanes and the stop line of opposing traffic flows. The design of the median opening is also not in line with the sign prohibiting turning right and turning for traffic flow from the Ciledug Raya (East) road. It is recommended to close the median opening, rehabilitate the function of terminals and bus stops, evaluate the route licensing system, and rearrange public transport routes/routes.