

Kajian karakteristik dan perilaku lalu-lintas angkutan umum jenis minibus dan pengaruhnya terhadap kinerja lalu-lintas (Studi kasus Jl. Ciledug Raya) = Study on characteristic and traffic behavior of minibus public transport and its influence to traffic performance (Case study 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 memberikan 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 terlawanan. 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.

.....Annual economic loss caused by traffic congestion in Jabodetabek region could be as much as Rp. 3,000 billion for vehicle operating costs and Rp. 2,500 billion for travel time. To overcome transportation problem, including traffic congestion in Jabodetabek region, study SITRAMP (2004) recommending the importance of public transport development program. This recommendation require to be applied neglectlessly, considering of some people opinion assuming that public transport especially for minibus type (angkot) is

inefficient and represent the major cause of traffic congestion problem.

This study aim to identify characteristic and traffic behavior of angkot and its influence to traffic performance, identify characteristic of engineering design and its influence to traffic behavior, and give suggestion in handling of traffic problem. As case study one segment of jl. Ciledug Raya front of CBD Ciledug Mall, Tangerang was chosen. Data collecting was conducted by video camera observing. The analysis use method of correlation, regression, and decriptive analysis.

Result of analysis showed that minibus public transport has unique traffic behavior to each its route, and has pattern differ to each flow direction. Economic motivation, habit factor, cultural system and unwritten norm among driver of minibus public transport represent background of their traffic behavior. Variable of load factor have medium correlation to variable speed of angkot, and variable of number of loading/unloading passenger have strong correlation to variable mean of stopped time. Influence of minibus (angkot) traffic behavior which represented by variable: number of stopped vehicle and mean speed of angkot, have strong and medium correlation to variable mean speed of private vehicle (4 wheels) of through traffic.

Design of existing median opening (intersection) in study area disagree with intersection geometry standard, and result conflict between lane of right turn traffic and stopping line of opposed traffic. Design of median opening was also disagree with traffic sign of prohibited right turn and prohibited u-turn for traffic from jl. Ciledug Raya (Eastbound). It is suggested to close of median opening, rehabilitation of terminal and shelter function, evaluation of public transport route permit system, and rearrange public transport route.