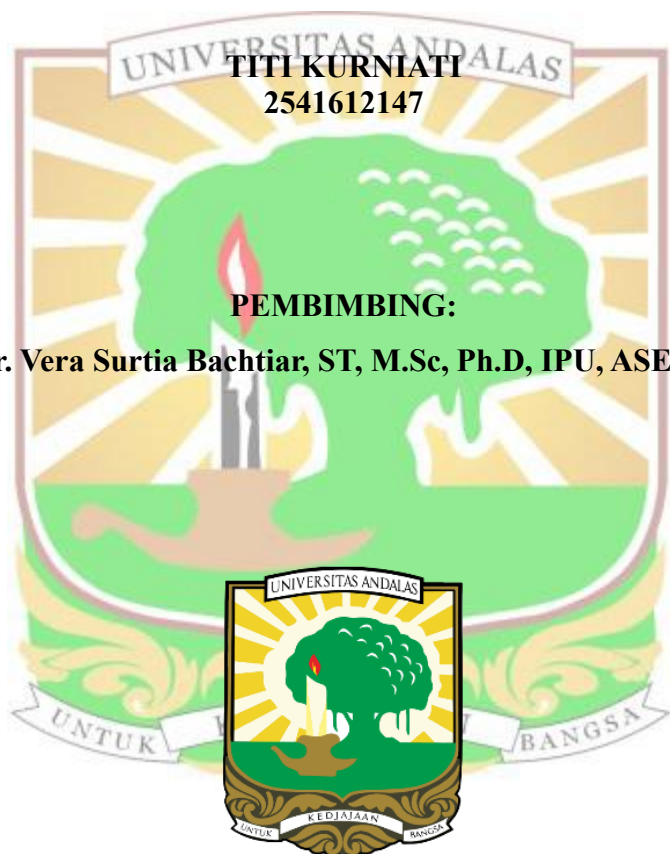


DAMPAK DEVIASI RUTE PERGI DAN PULANG BUS TRANS PADANG KORIDOR III TERHADAP KINERJA OPERASIONAL

LAPORAN PENELITIAN



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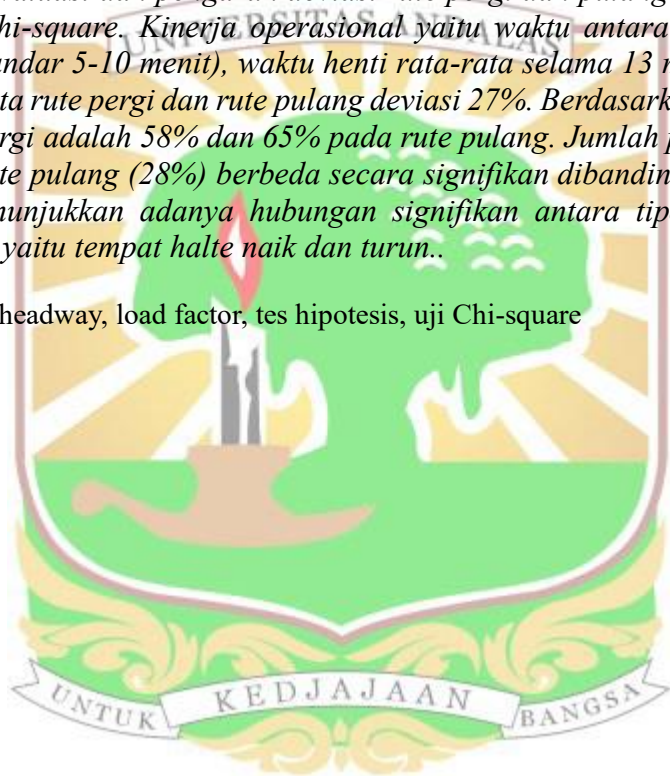
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INTISARI

Masalah terbaru dalam sektor transportasi urban di Indonesia adalah melawan peningkatan kepadatan lalu lintas dan polusi udara di area urban dan sistem Bus Rapid Transit (BRT) adalah salah satu solusinya. BRT adalah sistem transit berbasis bus berkualitas tinggi yang memberikan layanan yang cepat, nyaman, serta memiliki kapasitas angkut yang besar. Untuk meningkatkan implementasi BRT di kota Padang, yang bernama bus Trans Padang (TP) dilakukan penambahan layanan Koridor III (K3) yang melayani rute Pusat Kota – Pusat Pemerintahan. Penelitian ini bertujuan untuk mengidentifikasi kinerja operasional Bus TP K3, mengevaluasi deviasi antara rute pergi dan pulang, serta menentukan pengaruh deviasi tersebut terhadap kinerja operasional bus. Data primer dikumpulkan dari survei statis, dinamis, serta kuesioner terhadap 155 pengguna bus. Kinerja operasional diolah secara statistik deskriptif, evaluasi dan pengaruh deviasi rute pergi dan pulang dianalisis dengan uji hipotesis dan uji Chi-square. Kinerja operasional yaitu waktu antara (headway) rata-rata adalah 11 menit (standar 5-10 menit), waktu henti rata-rata selama 13 menit dan factor muat (load factor) rata-rata rute pergi dan rute pulang deviasi 27%. Berdasarkan panjang rute total, deviasi pada rute pergi adalah 58% dan 65% pada rute pulang. Jumlah penumpang yang naik di daerah deviasi rute pulang (28%) berbeda secara signifikan dibandingkan rute pergi (7%). Uji Chi-square menunjukkan adanya hubungan signifikan antara tipe perjalanan dengan variabel perjalanan yaitu tempat halte naik dan turun..

Kata kunci : deviasi, headway, load factor, tes hipotesis, uji Chi-square



ABSTRACT

The latest challenge in Indonesia's urban transportation sector is addressing rising traffic congestion and air pollution. The Bus Rapid Transit (BRT) system serves as one of the viable solutions. BRT is a high-quality, bus-based transit system that delivers fast, comfortable, and high-capacity transport services. To improve BRT implementation in Padang City, the local BRT service Trans Padang (TP) expanded its operations by adding Corridor III (K3), which serves the City Center – Government Center route. This study aims to identify the operational performance of the TP K3 bus, evaluate route deviations between outbound (going) and inbound (returning) trips, and determine the impact of these deviations on the bus's operational performance. Primary data were gathered through static and dynamic surveys and questionnaires distributed to 155 bus users. Operational performance data was processed using descriptive statistics. The evaluation and impact of the outbound and inbound route deviations were analyzed using hypothesis testing and the Chi-square test. Operational performance: the average headway was 11 minutes (compared to the standard 5–10 minutes), the average dwell time was 13 minutes, and the average load factor for both outbound and inbound route deviations was 27%. Based on the total route length, the deviation was 58% on the outbound route and 65% on the inbound route. The number of passengers boarding in the inbound deviation area (28%) was significantly higher than in the outbound deviation area (7%). The Chi-square test revealed a significant relationship between the travel type and travel variables, specifically regarding their location of boarding and unboarding bus stop.

Keywords : deviation, headway, load factor, hypothesis test, Chi-square test

