

INTISARI

Pertumbuhan lalu lintas dan mobilitas masyarakat di wilayah Sayung – Demak menuntut penyediaan infrastruktur jalan yang memadai. Penelitian ini fokus pada membandingkan Biaya Operasional Kendaraan (BOK) di jalan arteri primer dan Jalan Tol Semarang – Demak Seksi 2 menggunakan metode Pd T-15-2005-B dan *Pacific Consultant International* (PCI). Jenis kendaraan yang ditinjau yaitu mobil, bus dan truk.

Hasil dari penelitian ini menunjukkan bahwa waktu tempuh kendaraan di jalan tol lebih singkat, dengan rata-rata selisih waktu tempuh mobil 6,6 menit, bus 4,2 menit dan truk 5,4 menit. Perhitungan metode Pd T-15-2005-B menunjukkan bahwa BOK per kilometer di jalan arteri untuk mobil sebesar Rp2.518,82/km, bus sebesar Rp4.443,48/km, dan truk sebesar Rp5.169,20/km sedangkan BOK per kilometer di jalan tol lebih rendah, untuk mobil sebesar Rp2.064,00/km, bus sebesar Rp3.401,61/km, dan truk sebesar Rp4.216,28/km. Perhitungan metode PCI menunjukkan bahwa BOK per kilometer di jalan arteri primer untuk mobil sebesar Rp2.617,57/km, bus sebesar Rp3.527,23/km, dan truk sebesar Rp3.386,18/km sedangkan BOK per kilometer di jalan tol untuk mobil sebesar Rp3.626,78/km, bus sebesar Rp3.296,25/km, dan truk sebesar Rp2.910,12/km. Kedua metode menunjukkan hasil BOK per kilometer di jalan tol lebih ekonomis dibandingkan jalan arteri primer. Analisis perhitungan Besar Keuntungan Biaya Operasional Kendaraan (BKBOK) menunjukkan bahwa tarif tol yang telah ditetapkan melebihi batas 70% dari nilai BKBOK. Tarif tol dari hasil perhitungan 70% BKBOK secara rata-rata sebesar Rp10.700,51 yang berarti harga tarif tol per kilometer sebesar Rp668/km.

Kata kunci: BOK, Pd T-15-2005-B 2005, *Pacific Consultant International* (PCI)

ABSTRACT

The growth of traffic and mobility of people in the Sayung - Demak area requires the provision of adequate road infrastructure. This study focuses on comparing Vehicle Operating Costs (VOC) on primary arterial roads and the Semarang - Demak Toll Road Section 2 using the Pd T-15-2005-B and Pacific Consultant International (PCI) methods. The types of vehicles considered are cars, buses and trucks.

The results of this study indicate that the travel time of vehicles on toll roads is shorter, with an average difference in travel time for cars of 6.6 minutes, buses of 4.2 minutes and trucks of 5.4 minutes. The calculation of the Pd T-15-2005-B method shows that the BOK per kilometer on arterial roads for cars is Rp2,518.82/km, buses of Rp4,443.48/km, and trucks of Rp5,169.20/km while the BOK per kilometer on toll roads is lower, for cars of Rp2,064.00/km, buses of Rp3,401.61/km, and trucks of Rp4,216.28/km. The PCI method calculation shows that the BOK per kilometer on primary arterial roads for cars is Rp2,617.57/km, buses Rp3,527.23/km, and trucks Rp3,386.18/km, while the BOK per kilometer on toll roads for cars is Rp3,626.78/km, buses Rp3,296.25/km, and trucks Rp2,910.12/km. Both methods show that the BOK per kilometer on toll roads is more economical than on primary arterial roads. Analysis of the calculation of the Large Vehicle Operating Cost Profit (BKBOK) shows that the toll tariffs that have been set exceed the 70% limit of the BKBOK value. The toll tariff from the calculation of 70% BKBOK on average is Rp10,700.51, which means the toll tariff price per kilometer is Rp668/km.

Keyword: VOC, Pd T-15-2005-B 2005, Pacific Consultant International (PCI)