



INTISARI

Transportasi darat, khususnya kereta api dan bus, memainkan peran yang sangat vital dalam mendukung mobilitas masyarakat di Indonesia, terutama pada rute Yogyakarta-Jakarta. Perkembangan infrastruktur dan peningkatan kualitas layanan transportasi telah mendorong peningkatan penggunaan kedua moda transportasi ini. Kereta api diminati karena keunggulannya dalam hal keamanan, ketepatan waktu, dan kenyamanan. Sementara bus menjadi pilihan utama bagi masyarakat yang mencari fleksibilitas, aksesibilitas, dan biaya yang lebih terjangkau. Dengan adanya variasi layanan dan peningkatan infrastruktur yang mendukung kedua moda transportasi ini, penumpang kini memiliki lebih banyak pilihan untuk merencanakan perjalanan mereka sesuai dengan kebutuhan dan preferensi masing-masing. Penelitian ini bertujuan untuk menganalisis kecenderungan pemilihan moda transportasi antara kereta api dan bus pada rute Yogyakarta-Jakarta.

Untuk tujuan tersebut, digunakan metode survei *stated preference* dengan 206 responden yang mewakili populasi yang dibutuhkan. Data yang diperoleh kemudian diolah menggunakan analisis regresi linier berganda dan model pemilihan moda binomial logit selisih, dengan menggunakan variabel biaya/tarif perjalanan (X_1), variabel waktu tempuh perjalanan (X_2), variabel frekuensi keberangkatan armada (X_3).

Hasil uji statistik didapatkan bahwa seluruh variabel berpengaruh dan lulus uji. Diperoleh persamaan utilitas yaitu $(UKA-Ubus) = 1,506 - 0,076X_1 - 0,091X_2 - 0,079X_3$. Didapatkan variabel biaya/tarif perjalanan berpengaruh signifikan didapat dari selisih biaya Rp 25.000 probabilitas kereta api 46% sedangkan bus AKAP 54%. Dengan selisih biaya Rp 50.00-Rp75.000 didapat probabilitas kereta api 49% dan bus AKAP 51%. Sedangkan pada selisih Rp 100.000-Rp 125.000 didapat probabilitas masing-masing moda sama yaitu 50%. Sementara itu, variabel waktu tempuh berpengaruh tetapi tidak signifikan, dengan probabilitas memilih kereta api sebesar 47% dan bus AKAP 53%. Variabel frekuensi keberangkatan armada juga berpengaruh tetapi tidak signifikan, dengan probabilitas memilih kereta api sebesar 47% dan bus AKAP 53%.

Kata kunci: *Pemilihan Moda Transportasi, Bus, Kereta Api, Stated Preference, Analisis Regresi Linier Berganda*



ABSTRACT

Land transportation, particularly trains and buses, plays a vital role in supporting the mobility of people in Indonesia, especially on the Yogyakarta-Jakarta route. The development of infrastructure and the improvement of transportation service quality have driven the increased use of these two modes of transportation. Trains are favored for their advantages in safety, punctuality, and comfort, while buses are the primary choice for those seeking flexibility, accessibility, and more affordable costs. With the variety of services and infrastructure improvements supporting these two modes of transportation, passengers now have more options to plan their trips according to their needs and preferences. This study aims to analyze the trends in the selection of transportation modes between trains and buses on the Yogyakarta-Jakarta route.

For this purpose, a stated preference survey method was used, involving 206 respondents representing the required population. The collected data was then processed using multiple linear regression analysis and a binary logit choice model with difference, utilizing the variables of travel cost/tariff (X_1), travel time (X_2), and departure frequency (X_3).

Based on the statistical test results, all variables were found to have an influence and passed the test. The utility difference equation was obtained as $(UKA-U_{bus}) = 1,506 - 0,076X_1 - 0,091X_2 - 0,079X_3$. The variable of travel cost/tariff was found to have a significant influence, with a difference of Rp 25,000 resulting in a probability of 46% for trains and 54% for buses. With a cost difference of Rp50,000-Rp75,000, the probability for trains was 49% and for buses 51%. With a difference of Rp100,000-Rp125,000, the probability for each mode was equal at 50%. Meanwhile, the travel time variable had an influence but was not significant, with a probability of 47% for trains and 53% for buses. The departure frequency variable also had an influence but was not significant, with a probability of 47% for trains and 53% for buses.

Keywords: *Selection of Transportation Modes, Bus, Train, Stated Preference, Multiple Linear Regression Analysis, Binary Logit Regression*