

# Analisis Status Operasional Transjakarta Rute Pulogadung 2 - Dukuh Atas 2 Akibat Pengoperasian Light Rail Transit (LRT) Jakarta Rute Velodrome - Dukuh Atas = Operational Status Analysis of Transjakarta Pulogadung 2 - Dukuh Atas 2 Route Due to the Operation of Light Rail Transit (LRT) Velodrome - Dukuh Atas Route

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## Abstrak

LRT Jakarta dibangun untuk mengatasi permasalahan transportasi di DKI Jakarta, Rencana pembangunan LRT Jakarta akan dilanjutkan dari Velodrome hingga Dukuh Atas. Namun, saat ini terdapat moda transportasi lain dengan rute yang tumpang tindih/overlapping lebih dari 50% dengan LRT Jakarta, yaitu Transjakarta rute Pulogadung 2 – Dukuh Atas 2. Penelitian ini bertujuan untuk menganalisis variabel yang mempengaruhi berpindahnya pengguna Transjakarta, membuat model fungsi utilitas, dan menganalisis potensi kesediaan berpindah pengguna moda transportasi Transjakarta akibat pengoperasian LRT Jakarta rute Velodrome – Dukuh Atas. Penelitian ini menganalisis kebijakan terbaik terkait status operasional Transjakarta rute Pulogadung 2 – Dukuh Atas 2 ketika LRT Jakarta rute Velodrome – Dukuh Atas beroperasi. Metode analisis penelitian yang digunakan adalah metode analisis kuantitatif yaitu metode analisis data deskriptif dan metode analisis data inferensial (regresi logistik biner). Data yang dibutuhkan pada penelitian ini adalah data perjalanan responden untuk membagi kelompok data dan data preferensi kesediaan berpindah responden. Data tersebut didapat dengan metode survei yaitu metode stated preference dan revealed preference. Hasil data dikelompokkan dan dilakukan uji korelasi Spearman, kemudian dibentuk fungsi utilitas dari variabel yang berkorelasi kuat dan model tersebut diuji dengan uji kelayakan Omnibus dan Hosmer and Lemeshow Test. Selanjutnya, dilakukan uji validitas dengan membentuk model logit biner lalu diuji dengan metode Root Mean Square Error (RMSE) untuk membandingkan data real dan data model. Kemudian, dipilih model terbaik dari masing-masing kelompok data dan diakhiri dengan uji komparatif Mann-Whitney untuk melihat perbedaan dua kelompok data. Berdasarkan hasil model terbaik, potensi perpindahan moda transportasi dari transjakarta ke LRT Jakarta pada tarif Rp8.500 sebesar 5.99% untuk kelompok 1 dan 29.55% untuk kelompok 2. Hasil tersebut menunjukkan bahwa berlanjutnya operasional transjakarta merupakan kebijakan terbaik karena lebih dari 50% dari pengguna Transjakarta Koridor 4 tetap menggunakan Transjakarta ketika LRT Jakarta rute Velodrome – Dukuh Atas beroperasi.

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are data of the respondents' travel routes to divide the data groups and data on the respondents' willingness to switch modes of transportation. The data will be obtained using a survey method, namely stated preference and revealed preference method. The results were then grouped and analyzed using the Spearman rank correlation test, then a utility function was formed from variables that were strongly correlated and the model was tested with the Omnibus and Hosmer & Lemeshow feasibility tests. Furthermore, validity was tested by forming a binary logit model and then tested with the Root Mean Square Error (RMSE) method to compare real data and model data. Then, the best model was selected from each data group and ended with the Mann-Whitney comparative test to see the differences between the two data groups. Based on the results of the best model, the potential for switching modes of transportation from Transjakarta to LRT Jakarta at a rate of IDR 8.500 is 5.99% for group 1 and 29.55% for group 2. These results indicate that continuing Transjakarta operations is the best policy because more than 50% of Transjakarta Corridor 4 users choose to continue using Transjakarta when the Jakarta LRT Velodrome – Dukuh Atas route operates. The Jakarta LRT was built to overcome transportation problems in DKI Jakarta. The Jakarta LRT development plan will continue from the Velodrome to Dukuh Atas. However, currently there are other modes of transportation with routes that overlap more than 50% with the Jakarta LRT, namely Transjakarta Pulogadung 2 – Dukuh Atas 2 route. This study aims to analyze the variables that influence the migration of Transjakarta users, create a utility function model and analyze the willingness potential of Transjakarta users for switching modes of transportation due to the operation of the Jakarta LRT for the Velodrome – Dukuh Atas route. This study analyzes the best policies related to the operational status of Transjakarta route Pulogadung 2 – Dukuh Atas 2 when the Jakarta LRT Velodrome – Dukuh Atas route is operating. The research analysis method used is the quantitative analysis method, namely the descriptive data analysis method and the inferential data analysis method (binary logistic regression). The data needed in this study are data of the respondents' travel routes to divide the data groups and data on the respondents' willingness to switch modes of transportation. The data will be obtained using a survey method, namely stated preference and revealed preference method. The results were then grouped and analyzed using the Spearman rank correlation test, then a utility function was formed from variables that were strongly correlated and the model was tested with the Omnibus and Hosmer & Lemeshow feasibility tests. Furthermore, validity was tested by forming a binary logit model and then tested with the Root Mean Square Error (RMSE) method to compare real data and model data. Then, the best model was selected from each data group and ended with the Mann-Whitney comparative test to see the differences between the two data groups. Based on the results of the best model, the potential for switching modes of transportation from Transjakarta to LRT Jakarta at a rate of IDR 8.500 is 5.99% for group 1 and 29.55% for group 2. These results indicate that continuing Transjakarta operations is the best policy because more than 50% of Transjakarta Corridor 4 users choose to continue using Transjakarta when the Jakarta LRT Velodrome – Dukuh Atas route operates. The Jakarta LRT was built to overcome transportation problems in DKI Jakarta. The Jakarta LRT development plan will continue from the Velodrome to Dukuh Atas. However, currently there are other modes of transportation with routes that overlap more than 50% with the Jakarta LRT, namely Transjakarta Pulogadung 2 – Dukuh Atas 2 route. This study aims to analyze the variables that influence the migration of Transjakarta users, create a utility function model and analyze the willingness potential of Transjakarta users for switching modes of transportation due to the operation of the Jakarta LRT for the Velodrome – Dukuh Atas route. This study analyzes the best policies related to the operational status of Transjakarta route Pulogadung 2 – Dukuh Atas 2 when the Jakarta LRT Velodrome – Dukuh Atas route is operating. The research analysis method used is

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