## ANALYSIS OF ABILITY TO PAY, WILLINGNESS TO PAY AND OPERATIONAL COST OF BUS RAPID TRANSIT TRANS JATENG: PURWOKERTO - PURBALINGGA

Final Project Report in fulfillment of the requirement for the degree Bachelor of Civil Engineering

> by: ADRIAN BAGOES CHRISTIANTO Student ID Number: 141315184



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JULY 2018

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74/4 25. 2018

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#### ACKNOWLEDGEMENTS

First and foremost, I would like to thanks to Jesus Christ for the blessing that given to me, so I can prepare and finish my final project report. The purpose of the final project with the title "Analysis of Ability to Pay, Willingness to Pay and Operational Cost of BRT Trans Jateng: Purwokerto - Purbalingga" is to complete the requirement of undergraduate program (S-1) in International Civil Engineering Program, Department of Civil Engineering, Faculty of Engineering, Universitas Atma Jaya Yogyakarta. For the completion of this final project, I also would like to express my gratitude towards:

- 1. Dr. Ir. J. Dwijoko Ansusanto, M.T., as my supervisor, for his advice, patient, and kindness that given to me during the counseling. His support and advice have been invaluable.
- 2. Transportation Department of Central Java and Banyumas (*Dinas Perhubungan Provinsi Jawa Tengah dan Kabupaten Banyumas*) support and cooperation which help me to complete this report.
- 3. My big family, especially my parents, brothers, sister and my home for the love, support, and advices that given to me to finish this final project.
- 4. All the lectures and staffs in the Civil Engineering Department, both in lecture and non academic for all the knowledge and guidance.
- 5. My friend in ICEP batch 2014, who encourage, accompany and support me to finish this final project.

Finally, I as the writer of this report realized that this report has many mistakes and may have space for further improvement. For that, any suggestion and critics will be accepted. Thank you.

Yogyakarta, July 2018
The Auth Adrian Bagoes Christianto

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#### **ABSTRACT**

ANALYSIS OF ABILITY TO PAY, WILLINGNESS TO PAY AND OPERATIONAL COST OF BRT TRANS JATENG: PURWOKERTO - PURBALINGGA, Adrian Bagoes Christianto, Student ID Number 14.13.15184, year of 2018, Transportations Engineering, International Civil Engineering Program, Department of Civil Engineering, Universitas Atma Jaya Yogyakarta.

In 2018, government of Central Java planned to establish Bus Rapid Transit (BRT), corridor Purwokerto – Purbalingga. The fare arrangment of BRT is considering two sides, demand from society and operational cost. It can not to be too cheap, because it has to fulfill the operational cost of the public transportation. And it is can not to be too expensive, then the public transportation can not attract people to use it. The value of ability and willingness to pay then is compared to the vehicle operational cost and also the fare due to the policy of the government.

The research was concducted in by interviewing 100 respondent of the posibility passenger of BRT in Purwokerto. The approach of the interview in the ability to pay (ATP) is the cost per trip and travel objective. Whereas the willingness to pay (WTP) is the estimation or perception of BRT fare during the operational. Furthermore the operational cost of BRT was calculated by the data of bus specification and route design based on Transportation Department of Central Java.

The result of analysis of vehicle operational cost is Rp. 9.200 / bus-km. By using the load factor of passenger is 70 %, the fare is Rp. 11.105,71 / passenger-trip. The value of ability to pay of (ATP) student group is Rp. 3.517 and willingness to pay (WTP) is 2.367, while for non – student respectively are Rp. 6.033 and Rp. 4.060. Government of Central Java stated the fare is Rp. 2.000 for the student and Rp. 4.000 for the non-student group. The result shows 95% of students are able to pay the fare, Rp. 2.000, and 92% of non-students are able to pay the fare, Rp. 4.000, of BRT. The research recommend the BRT has to connect with angkot, bus and train by using Transit Oriented Development (TOD), increasing the quality of service of *angkot*, sidewalks, bus stops, and bicycle area in order to attract people to use public transportation

**Key Words**: Ability to pay (ATP), Willingness to pay (WTP), Fare, Operational cost