

SOCIO-ECONOMIC PROFILING OF COMMUTERS IN JABODETABEK: UNVEILING TRENDS AND IMPROVEMENT OF SERVICES NEEDED

**Adinda Vienna Wulandari^{1b}, Tuti Agustin^{2*}, and Amirotul M. H.
Mahmudah³**

^{1,2,3} Civil Engineering Department, Faculty of Engineering. Universitas Sebelas Maret,
Surakarta, Indonesia.

(E-mail: tuti.agustin@staff.uns.ac.id)

ABSTRACT

This study examines the travel patterns of users of the KRL Commuter Line in Jabodetabek, a vast area with a heterogeneous society. By analyzing the socio-economic backgrounds of the users, this study aims to provide a deeper understanding of how these factors influence their mode, route, and travel time choices. The findings of this study can be used to improve the accessibility and inclusivity of the KRL Commuter Line. This public transportation service serves the community in carrying out their daily activities. The collection of research data was conducted through a questionnaire survey approach at Manggarai Train Station, the largest train station in Jakarta. This survey was carried out on weekdays between May and June of 2023. Descriptive analysis was performed on the gathered data to identify the travel patterns of the users. Based on the data, it was found that Jabodetabek KRL Commuter Line users are dominated by females with an age range of 18 – 25 years, with occupations as students and income of less than Rp 1.500.000. Therefore, alternative service improvements that may be carried out are the improvement of comfort and safety & security services, which can be actualized, for example, by adding the amount of CCTV, streetlights, and security officers. Research data with better variety and quantity would show the users' travel patterns better. It is to be hoped that future research will not only focus on one location but will consider other locations and travel routes.

Keywords: Jabodetabek KRL, service improvement, travel patterns, travel safety, travel security.

INTRODUCTION

Jabodetabek is a metropolitan city consisting of Jakarta as the center and the surrounding cities, namely Bogor, Depok, Tangerang, and Bekasi. As the nation's capital, Jakarta, the center of all activities, certainly influences various activity sectors in Jabodetabek. One of them is the economic sector; to be able to support economic growth, high mobility or movement of society is needed.

Public transportation has a vital role in supporting the movement of people in an area. The benefit of public transportation is its accessibility to various groups of society. Jabodetabek has people with various socio-economic backgrounds. This research aimed to analyze the

socio-economic characteristics of Jabodetabek Commuter Line's users as a public transportation in Jabodetabek. Analyzing the socio-economic background of KRL users has various benefits, such as knowing a phenomenon in users' travel patterns so that it can be considered when creating, establishing, or evaluating a public transportation policy.

A person's socio-economic background indicates a traveler's resources. This can influence how someone decides to travel, which will impact people's travel patterns. Someone with a higher income has a smaller average trip duration due to the increased ability to choose a place to live that is not far from the center of activity (Zhao & Lou, 2010). The use of private vehicles is also positively correlated with a person's income because people with a significant income tend to have skilled jobs and are far from where they live (Schwanen et al., 2001). The level of education positively influences the distance a person travels, so the higher the level of education, the greater the duration of the trip (Schwanen et al., 2003). Apart from that, gender also acts as an essential factor influencing a person's travel patterns (Lin et al., 2015). The results of previous research show that married women have shorter travel duration and distance. Having children is also an essential factor influencing women's travel patterns as one of the considerations for carrying out activities not far from where they live (Turner & Niemeier, 1997).

METHODS

This research collected socio-economic data on Jabodetabek Commuter Line's users through a survey. The direct survey was conducted on May 2 – June 11, 2023, Tuesday – Thursday from 09.00 to 17.00 WIB at Manggarai Station, South Jakarta. The survey method is carried out by distributing questionnaires containing questions about the socio-economic background of users. To obtain socio-economic data on Jabodetabek Commuter Line's users, respondents were asked to choose one of the categories that best suited actual conditions. The data that has been collected from the questionnaire will be analyzed descriptively.

RESULT AND DISCUSSIONS

Based on all 153 respondents as samples, the characteristics of the respondents are as follows:

Table 1. Socio-Economic Data of Jabodetabek Commuter Line's Users

Gender	Sample	Percentage
Male	29	19%
Female	124	81%
Age	Sample	Percentage
< 18 years	9	6%
18 – 25 years	138	90%
26 – 35 years	9	4%
36 – 45 years	1	0%
> 45 years	0	0%
Occupation	Sample	Percentage
Student	137	94%

Private employer	13	8%
Entrepreneur	2	1%
Other	1	1%
Income	Sample	Percentage
< Rp 1.500.000	103	67%
Rp 1.500.000 – Rp 3.000.000	35	23%
Rp 3.000.000 – Rp 4.500.000	10	7%
> Rp 4.500.000	5	3%

Based on the results, it is known that the majority of the sample is dominated by females, with an age range of 18 – 25 years, with occupations, namely students, and incomes of less than IDR 1,500,000. Remember that for respondents who do not have income due to several reasons, such as not having a job or still going to school, the amount of income is based on the monthly pocket money set aside for transportation costs.

When you want to create or evaluate a public transportation policy, you need an understanding of the actual conditions of society. Based on the results of the survey that has been carried out, several policies that can be implemented to improve public transportation services are:

The travel patterns of travelers differ based on gender. Women are different from men (Crane, 2007). This can undoubtedly be a consideration for policymakers when they want to make decisions. The safety factor when using public transportation is the main factor influencing a woman's choice when traveling (Gardner, 1990). Jabodetabek KRL users are dominated by the age range of 18 – 25 years. Those in the non-productive age category (7 – 14 years and > 54 years) have lower travel patterns and shorter trip lengths than travelers of productive age (Fitria et al., 2020). Jabodetabek KRL users are dominated by students and students, amounting to 137 samples with a percentage of 94%. 13 samples were private employees, two were self-employed, and two were. The income of Jabodetabek KRL users is dominated by the category of less than IDR 1,500,000. Thirty-five samples have an income of IDR 1,500,000 – IDR 3,000,000, 10 samples have an income of IDR 3,000,000 – IDR 4,500,000, and 5 samples have more than IDR 4,500,000.

CONCLUSION

The research conducted shows that there is a trend towards a category in the socio-economic data of Jabodetabek KRL users. Based on this data, it is necessary to improve services to increase user satisfaction, accessibility and inclusiveness in accordance with user characteristics. Based on previous research, it is known that women have lower travel patterns due to concerns about safety. Several things that can be done to overcome this are by increasing the number of CCTV and streetlights in the station area and adding security officers in certain locations.

REFERENCES

1. Zhao, P., and Lu, B. Exploring job accessibility in the transformation context: An institutional approach and its application in Beijing. *Journal of Transport Geography Vol 18*(3) (2010), 393–401.
2. Schwanen, T., Dieleman, F. M., and Dijst, M. Travel Behaviour in Dutch monocentric and polycentric

- urban systems. *Journal of Transport Geography* Vol 9(3) (2001). 173-186.
3. Schwanen, T., Dieleman, F. M., and Dijst, M. Car use in the Netherlands daily urban systems: Does polycentrism result in lower commute time? *Urban Geography* Vol 34(5) (2003). 410-430.
 4. Lin, D., Allan, A., and Cui, J. The impacts of urban spatial structure and socio-economic factor on commuting patterns: a review. *International Journal of Urban Sciences* (2015).
 5. Turner, T., % Niermier, D. Travel to work and household responsibility: New evidence. *Transportation* Vol 24 (4) (1997). 397-419
 6. Crane, R. Is There a Quiet Revolution in Women's Travel? Revisiting The Gender Gap in Commuting. *Journal of the American Planning Association* Vol 73 (3) (2007), 298-316.
 7. Gardner, C. B., Safe Conduct: Women, Crime, and Self in Public Places. *Social Problems* Vol 37 (3) (1990), 311-328.
 8. Fitria, L. M., Devi, M. K., Roychansyah, M. S., Herwangi, Y., Nurjanah, S. Urban Travel Behavior Identification Using Critical Path Method. *Jurnal Tata Loka* Vol 22 (3) (2020), 452-462S