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Analysis of Commuter Increase in Jabodetabek Using Commuter Line

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Abstract: In big cities like Jabodetabek, transportation plays an important role in daily life. According to PT KAI statistics, one of the most popular land transportation routes in this area for local residents is the KRL Commuter Line between 2022 and 2024. This study aims to determine the number of KRL Commuter Line users in Jabodetabek, explain the variables that influence the number of users, and provide recommendations to improve the comfort and facilities offered on the KRL Commuter Line, especially in Jabodetabek. The method used in this study is purposive sampling, by interviewing KRL Commuter Line users in Jabodetabek. Descriptive analysis was used to examine the data collected, the findings showed that more people are using the KRL Commuter Line in 2024. Employees who consider the KRL Commuter Line more efficient because of its regular departure schedule and students who consider it cheaper than other modes of transportation are some of the factors that influence this growth.

Keywords: Transportation , Commuter Line , Jabodetabek .

INTRODUCTION

In big cities in Indonesia, especially in the Jabodetabek area (Jakarta, Bogor, Depok, Tangerang, and Bekasi), the use of public transportation has increased along with population growth and increasingly severe congestion in recent years. People's behavior in using public transportation is one of the factors causing this congestion (Setyodhono, 2017) . Every public transportation company renovates and improves its services due to the rapid development of public transportation. Circular and commuter are two categories of non-permanent residents. Commuters are those who travel across borders every day and then return to their original location, while circulars are individuals who move from their original location with the intention of returning (Noermartanto et al., 2024) . People who work outside the district or city are usually because there is no work in their area or it could also be because there are better job options when compared to the jobs available in their area (Setyodhono, 2017) . In addition, people who work as commuters are faced with various types of vehicles that they can use to go to work, such as motorbikes, cars, public transportation, commuter lines, and buses.

Many people use commuter line transportation for commuting. This can be seen from the volume of commuter line passengers in Jabodetabek in 2021 - 2024. In 2021 there were

127,826,764 users, while in 2024 there were 241,873,576 users from January to September 2024 (PT KCI 2024). Jabodetabek Commuter Line has been operating since the 1970s until its expansion in 1999. PT Kereta Api Indonesia (Persero) inaugurated PT Kereta Commuter Jabodetabek (KCJ) as its subsidiary on September 15, 2008. Starting with PT KAI (Persero) establishing the Jabotabek Urban Transportation Division, which is different from PT KAI (Persero) Daop 1 Jakarta. After this division, PT KAI (Persero) supervised the Jabotabek Urban Transportation Division, which handles Commuterline services in the Jabotabek area. Meanwhile, PT KAI Daop 1 Jakarta handles long-distance train services in the Jabotabek area. (PT Kereta Commuter Indonesia, 2024) PT Kereta Commuter Jabodetabek (PT KCJ) changed its name to PT Kereta Commuter Indonesia (PT KCI) on September 20, 2017. This change was made to prepare for the development of service areas that will be carried out by PT Kereta Api Indonesia to expand its territory (Putri, 2017)

Commuter line is expected to be an alternative solution for urban railway transportation that can be fully utilized by the community. It is expected to improve railway services, traffic safety, mobility and intermodal accessibility, customer comfort, and good operational performance. To meet the needs of the community, transportation services must improve features such as safety, comfort, punctuality, and efficiency. Commuter lines are expected to create positive relationships with customers, provide fair services, and provide comfortable transportation for customers.

This study was conducted to identify the number of commuter line users in Jabodetabek, identify factors that influence the increase in commuter line users in Jabodetabek, and describe these factors. In addition, this study also provides suggestions for improving the facilities and comfort available to current commuter line users.

METHOD

Descriptive research is used as a research methodology. Descriptive research is a type of research that aims to describe a situation or event. The purpose of descriptive research is to describe the facts and characteristics of a particular population methodically, factually, and accurately (Sumartini, 2018). Primary and secondary data are components of the data collected. The purposive sampling method is a method of sampling used by researchers based on certain considerations (Maharani & Bernard, 2018). Primary data was collected through direct interviews with commuter line users.

The primary data collected is used to determine the number of commuter line users, namely the commuter community. To determine the number of commuter line users and the variables that influence the increase in commuter line users, the primary data that will be collected in the field will be classified and analyzed using descriptive and analytical methods. This process is carried out to facilitate the processing of existing data. At this stage, the cross tab analysis technique is used for the influencing factors to identify the characteristics of population movement. Primary data collected in the field will be classified and analyzed using descriptive and analytical methods. The purpose of collecting primary data is to determine the number of commuter line users and the variables that influence the increase in commuter line usage. This process is carried out to create processing of data that has been There is more easy. This stage involves use technique crosstab analysis of factors that influence to identify characteristics movement resident.

RESULTS AND DISCUSSION

Mobility Population is the movement of society crossing territorial boundaries within time limits certain. Administrative boundaries such as province, district, sub-district, urban village or village usually used to limit the area (Palengkahu et al., 2021). In addition to mortality and fertility, one of the three factors that affect the population of a country is population mobility. Daily migration, also known as commuting, is the journey of people from

their home area to their destination area within a certain time limit and returning to their home area on the same day (Noermartanto et al., 2024) .

According to (Noermartanto et al., 2024) People who move from their previous place of residence to their new place of residence are called migration. In contrast, non-permanent migration is the movement of people from one area to another with the aim of not settling in the destination area. Non-permanent population mobility, on the other hand, is defined as people who move from one place to another without the intention of staying there. Despite living in a destination for a long time, a person is considered a non-permanent mobility actor if they move to another area and decide not to stay in the destination area. Commuting and staying or boarding at the destination location are two types of non-permanent population movements (circulation) (Ashari & Mahmud, 2018) .

Commuting mobility is the movement of people from their home area to their destination area within a certain period of time and then returning to their home area on the same day. However, the mobility of residents who stay overnight or boarding is defined as the movement or displacement of people who leave their place of residence for more than one day, but not more than six months. Someone who works in the central area and lives in a supporting area or buffer city often makes a commuter trip. Commuter line (KRL) is the most popular mode of transportation among the community, especially those who live in the Jabodetabek area. Electric rail trains (KRL) or commuter lines are terms for electric rail-based train services that are included in the category of urban railways (KEMENTERIAN PERHUBUNGAN, 2019). The operation of commuter trains in Indonesia is currently managed by a subsidiary of PT Kereta Api Indonesia, namely PT Kereta Commuter Indonesia.

Since 1976, the Jabodetabek Commuter Train (also known as the KRL Commuter Line) is an electric rail train operating in the Jakarta area. PT. Kereta Commuter Indonesia now serves several commuter routes throughout Indonesia, especially in the Jabodetabek, Solo, Yogya, Bandung, and Surabaya areas.

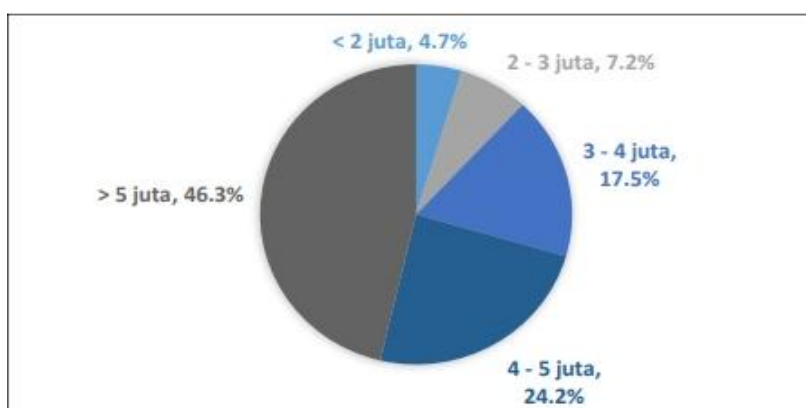


Source: PT KCI survey results 2024

Figure 1: Volume of commuter line users in JABODETABEK 2021 – 2024

Based on the data in the diagram, it is known the number of commuter line users in Indonesia. Commuter line users from 2021 to 2024 experienced a significant increase in passengers. In 2021, commuter line users were 127,826,754. If we compare it with passenger data in 2022 with a number of passengers of 217,964,892, this happened after the Covid-19 pandemic. However, in 2022 to 2024 the number of commuter line users increased rapidly. This was due to the start of activities returning to the way they were before the pandemic hit Indonesia .

According to research (Pratama et al., 2001) shows the income profile of the community using KRL transportation modes, including the middle class category in Indonesia, reaching 53.7%. Their income ranges from IDR 2,000,000 to IDR 5,000,000 per month. Around 46.3% of commuter train passengers earn more than IDR 5,000,000. Around 24.2 % have incomes between IDR 4,000,000 and IDR 5,000,000, and 17.5% have incomes between IDR 3,000,000 and IDR 4,000,000. Motorcycle users are still the majority of total commuters in Indonesia around (65.1%). However, the majority of public transportation users in Jabodetabek are train users (including KRL), which reaches 9.3% of all trips. This is higher than buses (6%) and other public transportation (4.6%) (Pratama et al., 2001) . Compared with fashion transportation land other like motorbikes , commuter line transportation more fast in terms of efficiency time . Demographic factors support this thing , like the fact that the majority passenger commuter on the track commuter Jabodetabek is employees . Due to this fact, the main purpose of commuter passengers is to get a faster mode of transportation to their workplace. The diagram of the proportion of commuter line users based on income class is below.



Source: research results (Pratama et al., 2001)

Image: Proportion of commuter line users

The purpose of people using the KRL commuter line is to work. The cost of the Jabodetabek commuter train may be reasonable for employees who often travel from upstream to downstream or vice versa. The use of the commuter line has an important function for commuter travelers. Supporting factors for small station facilities, which usually have limited facilities, cause a significant difference in the number of commuter users between large stations and small stations. Small stations have a lack of integration of transportation modes to the station. The integration of intermodal transportation services will have a positive impact on providing the best service to the community (Chindyana et al., 2022) . Stations play an important role in intermodal transportation operations because they function as meeting points between rail and road transportation service networks (Listantari & Herwening, 2015) .

It can be concluded that the commuter line KRL has many benefits for commuters, especially for workers in the Jabodetabek area. Both in terms of comfort and finances. Many commuter line users use this transportation because the transportation costs are cheap and also have a structured departure schedule. In addition, this transportation is very comfortable and has a schedule that can be adjusted to the schedules of the users. However, there are several

improvements that can be made to speed up commuter train operations, such as adding carriages at one departure time, especially during morning and evening working hours, adding departure schedules, and adding security guards to improve user safety. According to PT KCI research in 2024, there were 1,087,812 (57.3%) users of the KRL commuter line in Jabodetabek on weekdays and 863,530 (42.7%) on holidays.

CONCLUSION

Commuter line users in Jabodetabek have started to increase after the Covid-19 pandemic. The increase has skyrocketed, especially on weekdays. Cheap ticket prices, organized schedules, and the convenience of using private vehicles are the reasons why the Jabodetabek commuter line has become more popular. Recommendations for improving commuter line services are to increase the number of trains at one departure time, increase departure schedules, and add security guards on each train to improve customer safety.

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