

# Satisfaction Impact of Transjakarta Integrated Transportation System Quality Services

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**Abstract.** Transjakarta is designed as a mass transportation mode with an integrated system that supports the activities of the people in the capital city. However, in reality Transjakarta was not in line with what was expected. General problems such as service quality have not been able to transform private vehicle users to use public transportation. This study aims to measure and determine the effect of system integration services from Transjakarta on the level of people satisfaction. This research uses a quantitative method with the type of research Pre-Experimental Designs with data collection techniques in the form of surveys. The results of this study, presented about the level of satisfaction based on the services of officers, bus drivers, timeliness of buses, facilities at bus stops and buses, route directions, integration between corridors, bus lane sterilization, ease of non-cash payments, and extended operational hours.

## 1. Introduction.

The existence of public transportation in urban areas which is not only integrated but also must have a good service quality. Basically, public transportation is a solution to overcome congestion in urban areas [1]–[3]. Some studies suggest that in addition to quality, people's desire to change to public transportation is an affordable and integrated route that makes it easier for users [4].

Transjakarta is the first Bus Rapid Transit (BRT) transportation system in Southeast and South Asia that has been operating since 2004 in Jakarta, Indonesia. Transjakarta is designed as a mass transportation mode supporting People activities in a very congested capital city, until now Transjakarta bus passengers reach 507,909 passengers per day [5]. With an affordable price, Transjakarta is now the belle of the people in the capital. Transjakarta with the longest traffic lane in the world (251.2 km) and will continue to grow, and has 260 stops scattered in 13 Corridors out of 15. In its development, Transjakarta has experienced ups and downs in its development even though operationally Transjakarta has the privilege of having a special lane which generally affects the timeliness of the trip [6].



**Tabel 1.** Transjakarta Corridors

Corridors	Route	Number of bus stops	Inaugurated
1.	Blok M - Kota	17	15-Jan-2004
2.	Pulogadung – Harmoni	32	15-Jan-2006
3.	Kalideres – Pasar baru	16	15-Jan-2006
4.	Pulogadung – Dukuh Atas	17	27-Jan-2007
5.	Ancol – Kampung Melayu	18	27-Jan-2007
6.	Ragunan – Dukuh Atas	20	27-Jan-2007
Corridors	Route	Number of bus stops	Inaugurated
7.	Kampung Melayu – Kampung Rembutan	14	27-Jan-2007
8.	Harmoni – Lebak Bulus	22	21-Feb-2009
9.	Pinang Ranti – Pluit	27	31-Des-2010
10.	Cililitan – Tanjung Priok	22	31-Des-2010
11.	Pulogebang – Kampung Melayu	16	28-Des-2011
12.	Pluit – Tanjung Priok	25	14-Feb-2013
13.	Ciledug – Kapten Tendean	12	16-Agu-2017

*Source: PT. Transportasi Jakarta*

A study conducted by Gunawan and Kusnandar (2018), found several shortcomings of Transjakarta as a means of public transportation that is expected to reduce existing transportation problems. Transjakarta, in terms of service quality, is still considered to be problematic, such as the quality of comfort and ease of access for users as well as the problematic part [7]. Although in general the process of transitioning the People from using private transportation to using public transportation is a behavioural process, but in reality the quality of services which includes convenience, timeliness, and integration are the main prerequisites for consideration of people using public transportation [8]. Based on the background above relating to the quality of the service, this study tries to review more about service satisfaction from Transjakarta as a conceptualization of an integrated public transport system.

## 2. Research Design

### 2.1. Conceptual Framework

This study tries to parse public satisfaction with the quality of Transjakarta services as an integrated public transportation. In this case, good service is excellent service which includes regulation of services, other facilities, the role of the steering team, easy, cheap, fast and useful, as well as providing good service [9].

**Table 2.** Operational Research Variables

Variable	Conceptual Definition	Operational Definition		
		Dimention	Satisfaction Score	Measuring Scale
Satisfaction Impact of Transjakarta Integrated Transportation System Quality Services	Good services are services that provide a sense of security, security, ease of access as well as inspirational and innovative public services	1. Self-Awareness Enthusiasm 2. Responsiveness 3. Impressive 4. Value	<ul style="list-style-type: none"> <li>• Respondents who answered satisfied were given a score of 1 (satisfied)</li> <li>• Respondents who answered not worth 0 (dissatisfied)</li> </ul>	Guttman

Excellent service is associated with the mode of public transportation Transjakarta. To achieve ideal conditions like this, very much determined by various factors that are components of this transportation, namely the condition of infrastructure (roads), road network systems, condition of facilities (vehicles) and the mental attitude of the users of the transportation facilities [10].

## 2.2 Method

This study uses a quantitative approach with Pre-Experimental Design research. This research uses quantitative methods because all data is realized in the form of numbers and uses statistical techniques to analyze data. The purpose of this study was to determine the level of People satisfaction with the influence of Transjakarta bus services on the level of People satisfaction. As for this study, researchers used two variables, independent variables or independent variables that influence or cause changes or the emergence of dependent variables (bound), in this study is the effect of service. The dependent variable or the dependent variable (Y) that is affected or which is the result, because of the independent variables in this study is the level of satisfaction.

In this study, the data collection process was carried out by survey method through a questionnaire using the Guttman Scale, according to Sugiyono (2010), the guttman scale is a scale that measures the type of measurement of a firm answer, such as "yes-no". "Right-wrong", "never-never". In this scale the data obtained can be either interval data or dichotomous ratios (two alternatives) [11]. The sample used in this study were 100 Transjakarta passengers with an error rate of (10%) to strengthen the acquisition of answers to the satisfaction of the People of Transjakarta users in the Corridor 13 Ciledug-Captain Tendean Line, as the latest route from Transjakarta which also participates in connecting two cities.

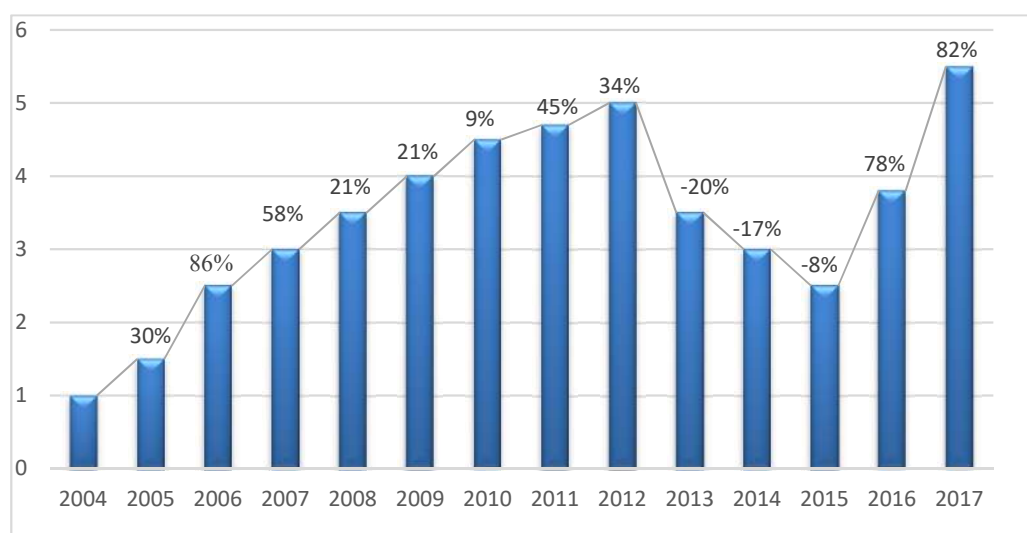
## 3. Result and Discussion

In this research, it tries to parse the level of People satisfaction with Transjakarta bus services. The data collection process in this study used an instrument in the form of distributing questionnaires to 100 users of Transjakarta Corridor 13 and then analysing the data based on what researchers have obtained.

Transjakarta is still a mainstay of transportation for the people of the capital. Since its inauguration until now, Transjakarta has dominated as a transportation that is often used by the people of Jakarta.

Since 2004 until now Transjakarta users have continued to increase although in 2013 there was a decrease in passengers due to the non-optimal Transjakarta in serving passengers. Transjakarta especially Corridor 13 Ciledug-Captain Tendean Line has become a mainstay of transportation for the people of the Capital to support their daily activities, Transjakarta passengers are not only dominated by teenagers, but many older users still use the mode of transportation. This is proof that Transjakarta is indeed in demand by every average age. In this regard, it is fitting for the government to increase the fleet and existing facilities to create equality for passengers, especially for elderly passengers and passengers with special needs.

In 2004 the number of Transjakarta passengers was 15 million and increased in 2005 by 30% to 20 million, and the number of passengers continued to increase in subsequent years. In 2006 it increased 86% to 38 million passengers, in 2007 there was an increase of 58% to 61 million passengers, in 2008 it rose 21.45% which amounted to 74 million passengers, in 2009 Transjakarta passengers rose 83 million passengers with an average of 21.45% , in 2010 rose 86 million passengers or rose 9%, in 2011 Transjakarta users increased again to 114 million passengers per year with a percentage of 45.56% and the number of Transjakarta users continued to increase until 2012 by 45.56% to 129 million passengers per year ( DKI Jakarta Bappeda). The picture above shows the inconsistency of the interests of Transjakarta passengers which can be caused by several things including quality of service.



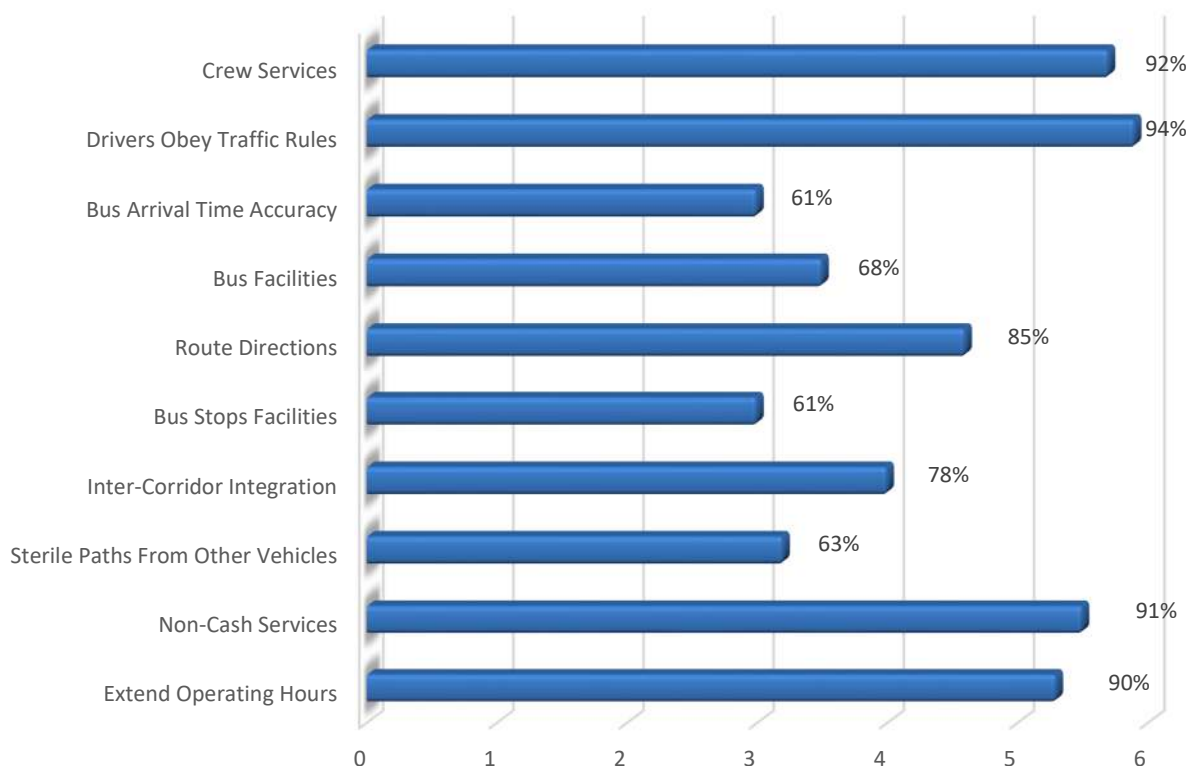
**Figure 1.** Overview of Transjakarta Passenger  
Source: PT. Transortasi Jakarta

The People will be satisfied if their service indicators can be met, such as complete and adequate facilities, affordable prices, good security, available information, and easy access to services. In this research the researcher discusses the influence of Transjakarta bus services, the researcher will explain what services have been provided by Transjakarta to each customer of the transportation user.

The results of processing research data through the distribution of questionnaires to 100 respondents who used Transjakarta Corridor 13 by asking questions about Transjakarta services showed that people get a sense of satisfaction with the existence of Transjakarta Corridor 13. From **Figure 2.** it is concluded that 92% of the People was very satisfied with the service of the officers who were in Transjakarta Corridor 13, they assumed that the services provided by the officers were good and maximal in providing information and explanations regarding the Transjakarta Corridor 13 problem. For the second question, 94% of Transjakarta users are very satisfied with the performance of bus drivers who drive buses in a state of caution in accordance with applicable regulations and do not drive their vehicles carelessly and disobeying the rules. The timeliness of bus arrivals is still a complaint of some Transjakarta Corridor 13 service users because the bus is considered to be coming too long not as many

passengers expect. Likewise, during busy times, the bus will feel congested because many people force themselves to ride even though the bus is full and cannot be ridden back.

People response to bus arrivals was only 61%, which meant giving a dissatisfied (moderate) answer. According to respondents or 68% of the People considered that the facilities on the bus were satisfactory because all facilities had been equipped such as information about Transjakarta on the bus, air conditioning facilities, accompanying music during the trip and cleanliness in the bus was kept clean and well. The People considered that 85% of the route directions at the bus stop were satisfactory, whereas in reality there was no information in the form of screens that provided information about the route and bus arrival information, but the People was satisfied with the route directions at each Transjakarta bus stop.



**Figure 2.** Percentage of people satisfaction level

The People assesses that public facilities in each Transjakarta Corridor have not been well implemented such as lack of air conditioning, lack of seating for passengers waiting for the arrival of the bus, and toll roads that are not properly maintained and maintained so that they look dirty and even look unfit for use. 61% of the people consider that they are quite satisfied with the facilities at the Transjakarta service passenger shelter, explaining that the corridors that are currently in place are well connected to each other. A good connection between corridors can make the People become more comfortable and safer in carrying out their daily activities 78% of the public responds to the integration of the Transjakarta bus corridor or is satisfied.

For the Transjakarta Corridor Line 13 63% of the public answered that the Transjakarta lane was not sterile from other vehicles. There are still many private vehicles and public transportation and motorbike riders entering and passing the special Transjakarta lane. (the answer is quite satisfied) In accordance with the rules that the government and PT. Jakarta Transportation applies 91% of the people are satisfied with Transjakarta's payment method using a non-cash system, but some think that transactions with non-cash cards make it difficult for elderly Transjakarta users because they do not understand the use of cards and the online refill system. The community explained that it would be better if Transjakarta Corridor 13 was opened until 12 pm. Because there are still many passengers who are

returning late at night so it is still needed until the evening so 90% of respondents want the operational time of Transjakarta Corridor 13 to be added in the future.

#### 4. Conclusion

Based on the results of research conducted on the influence of Transjakarta bus services on the level of satisfaction of the study community on Transjakarta buses, it can be concluded that the community assesses that the existence of Transjakarta has been able to assist them in carrying out their daily activities at work and in other cases 90% of all service users mass transportation Transjakarta bus Corridor 13 they feel satisfied and happy. Although generally satisfactory, there are a number of recommendations to further improve the quality of service from Transjakarta such as adding existing facilities at bus stops and also on buses, adding facilities such as air conditioners, clean toilets, as well as shelters that are user friendly. specifically, by providing other supporting facilities, such as elevators or escalators which are to support facilities at bus stops.

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