

## MAPPING IDEA &amp; LITERATURE FORMAT | RESEARCH ARTICLE

# The Influence of Service Quality, Price, Facilities, and Security on Customer Satisfaction of TransJakarta Bus Services

Lisda Herawati<sup>1</sup>, Liestyaningrum Rahmadhani Wisnu Putri<sup>2</sup>

<sup>1,2</sup>Department of Management, Faculty of Economics and Business, STIE Wiyatamandala, Jakarta, Indonesia.

Email: [lisdaherawati118@gmail.com](mailto:lisdaherawati118@gmail.com)<sup>1</sup>, [liestyaningrum@wym.ac.id](mailto:liestyaningrum@wym.ac.id)<sup>2</sup>

## ARTICLE HISTORY

Received: July 04, 2025

Revised: September 01, 2025

Accepted: September 03, 2025

## DOI

<https://doi.org/10.52970/grmilf.v6i1.1697>

## ABSTRACT

Customer satisfaction is a crucial indicator of public transportation service performance. For TransJakarta buses, satisfaction is shaped by service quality, price, facilities, and safety. This study aims to analyze the influence of these four variables on customer satisfaction, examining both partial and simultaneous effects. A quantitative approach was used with explanatory research methods. Data were collected through a Likert scale questionnaire (1–5) distributed to 200 TransJakarta bus users in the DKI Jakarta area. The analysis techniques included validity and reliability tests, classical assumptions, multiple linear regression, t-tests, F-tests, and the coefficient of determination (Adjusted R<sup>2</sup>). The results indicate that price, facilities, and safety have a significant impact on customer satisfaction, whereas service quality does not exhibit a significant influence. Simultaneously, the four variables significantly influence customer satisfaction with a model contribution of 51.2% to the variability of satisfaction. These findings underscore the importance of implementing competitive fare management policies, enhancing facility quality, and strengthening the security system to maintain and enhance customer loyalty. Practically, this study encourages TransJakarta management to prioritize price, facilities, and safety as strategies for service improvement. Theoretically, the results contribute to transportation service management literature by showing that, in low-cost public transport contexts, price and facilities may exert greater influence on satisfaction than service quality.

**Keywords:** Customer Satisfaction, Facilities, Price, Public Transportation, Safety, Service Quality, Transjakarta Bus.

## I. Introduction

Jakarta is the administrative center and largest economic hub in Indonesia, with an extremely high population density. The city is a primary destination for migration from various regions due to its better job opportunities, education, and public facilities compared to other areas (Arifah & Hidayah, 2021; Maheng et al., 2021). According to the Badan Pusat Statistik (BPS) Jakarta, in 2023, the population of Jakarta exceeded 10 million, making it one of the most densely populated cities in the world. The high level of economic activity and population mobility has triggered growth in private vehicle ownership, which in turn has increased traffic congestion and air pollution (Sani & Muslim, 2025). Traffic density in Jakarta continues to increase in line with the dominance of motorcycle use, which is estimated to reach more than 9 million units by 2024, followed by



passenger cars in second place (Pradonoputro & Kozo, 2021). A report by the Direktorat Lalu Lintas Polda Metro Jaya notes that traffic congestion during peak hours reaches 54%, with residents spending an average of 3–4 hours daily commuting (Bokings et al., 2020; Rahardja, 2022). This situation not only reduces productivity but also worsens air quality due to vehicle emissions, posing a threat to public health and quality of life (Ramadhan et al., 2021). In response to these issues, the Jakarta Provincial Government is striving to address traffic congestion and air pollution by developing an integrated mass transportation system. One of the solutions implemented is the TransJakarta Bus Rapid Transit (Nurcahyo et al., 2020), which has been operational since 2004. In response to these issues, the government has launched various sustainable public transportation modes, including Mass Rapid Transit (MRT), Light Rail Transit (LRT), and Bus Rapid Transit (BRT), which are operated through the TransJakarta service (A'rachman et al., 2022). These modes are designed to reduce dependence on private vehicles, improve mobility, and reduce carbon emissions. Among the three modes, TransJakarta has the widest coverage, the largest fleet, and serves hundreds of thousands of passengers every day (Devi et al., 2022; Rohmadhon, 2024).

TransJakarta plays a crucial role as the backbone of public transportation in Jakarta (Sitorus, 2022); however, its effectiveness is not solely measured by service capacity, but also by customer satisfaction levels (Nurhasan & Putro, 2021). Customer satisfaction reflects the quality of public transportation service providers, which is influenced by various factors, including service quality, price, facilities, and safety (Mers et al., 2023; Rahmi & Ridhaningsi, 2025). Service quality includes punctuality, staff friendliness, and operational reliability (Sibarani & Silitonga, 2025). Competitive prices are a crucial consideration for users, so a balance must be struck between affordability and service quality (Ilyas & Mustafa, 2022). Facilities such as bus cleanliness, seat comfort, stop conditions, and accessibility also influence passenger experience (Astuti et al., 2024). Meanwhile, safety aspects include protection from crime and safety during the journey (Sinaga et al., 2024). Although it has contributed to reducing traffic congestion, TransJakarta still faces several operational issues. Field observations in April 2025 revealed technological disruptions at the tap-in and tap-out gates at Mampang Prapatan Station, causing long queues. Passenger complaints on social media also highlighted the poor condition of toilet facilities at bus stops, dirty bus stop areas, uncertainty regarding departure schedules, non-functioning information screens, and inadequate maintenance of facilities (Bokings et al., 2020). Security issues at the bus stop and inside the buses also contribute to passenger discomfort (Budi & Rofid, 2020).

Previous studies have examined the influence of service quality on customer satisfaction in other modes of transportation, such as Astuti et al. (2024) on DAMRI services and Ilyas & Mustafa (2022) on the public transportation sector, which highlighted the roles of price and facilities. However, research examining the simultaneous influence of service quality, price, facilities, and safety on customer satisfaction specifically in the context of TransJakarta is still limited. This limitation forms a research gap that needs to be bridged through more comprehensive research. Based on this background, this study aims to analyze the influence of service quality, price, facilities, and safety on customer satisfaction levels of TransJakarta buses in Jakarta. Specifically, this study seeks to answer the following questions: (1) to what extent does service quality influence customer satisfaction, (2) how does price influence satisfaction perceptions, (3) to what extent do facilities influence user experience, and (4) how does safety contribute to customer satisfaction. The results of this study are expected to contribute to the management and transportation policymakers of TransJakarta in formulating strategies to improve service quality. Theoretically, the results of this study are expected to enrich the literature on public transportation management, particularly on the integration of variables that influence user satisfaction. Practically, the findings of this study can serve as input for TransJakarta management and local governments in formulating more targeted service improvement policies, supporting safe, comfortable, affordable, and sustainable public transportation.

Additionally, the development of digital technology also presents significant opportunities for enhancing TransJakarta services. The utilization of mobile applications for schedule information, non-cash payments, and real-time complaint reporting systems can be an effective means of increasing customer satisfaction. Service integration with other modes of transportation, facilitated by the concept of smart mobility, is expected to create a more efficient, safe, and sustainable transportation ecosystem. Thus,

optimizing technology, improving service quality, and strengthening safety aspects are strategic steps that must be taken so that TransJakarta can continue to play a role as the backbone of public transportation in Jakarta.

## II. Literature Review and Hypothesis Development

### 2.1. Service Quality

Service quality reflects the extent to which service providers can meet customer expectations through friendly (Badriyah & Kuswanto, 2023), responsive, and comfortable interactions (Safrida, 2023). In the context of public transportation, service quality is not only about speed and punctuality, but also the professionalism of staff (Karim et al., 2024) and consistency in implementing Standard Operating Procedures (SOPs) (Liu & Putro, 2024). The dimensions of service quality include responsiveness, friendliness, and adherence to established procedures. High service quality is a key factor in building user satisfaction and loyalty (Hariyanto & Rukmandiana, 2022), especially in services such as the TransJakarta Bus, which operates in densely populated areas.

### 2.2. Price

The price of public transportation services represents the amount of money that users must pay to obtain the benefits of the service (Silver et al., 2023), taking into account aspects of affordability, competitiveness, and the appropriateness of fares relative to service quality (Alsaleh & Farooq, 2023). Appropriate pricing can influence users' perception of value and their decision to continue using the service (Sari & Putra, 2022; Ariyani & Fauzi, 2023; Noorsyah et al., 2024). In the context of TransJakarta, competitive and proportionate pricing, combined with the quality provided, is an important indicator in shaping customer satisfaction.

### 2.3. Facilities

Facilities include all means and infrastructure provided by service providers to support user comfort (Alahakoon et al., 2025), convenience (Henmaidi et al., 2020), and safety (Pelangi et al., 2021). The form and function of facilities may vary depending on the characteristics of the service, ranging from the physical condition of the fleet to supporting infrastructure such as bus stops, waiting chairs, and air conditioning systems (Affif, 2021). The availability of adequate facilities will directly influence the perception of service quality and customer comfort levels during the use of public transportation (Harsritanto et al., 2020).

### 2.4. Safety

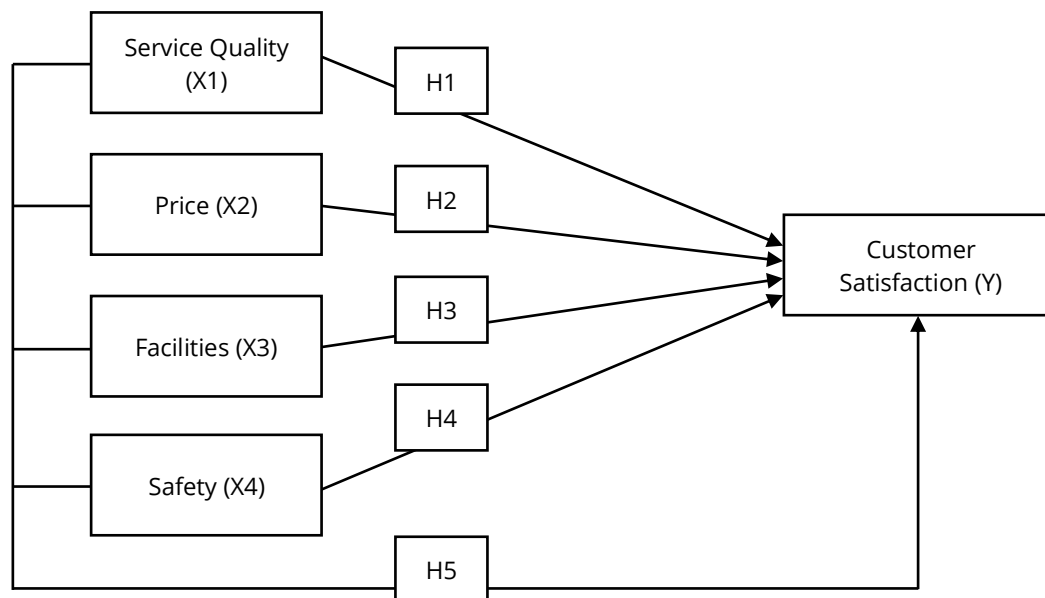
Public transportation safety is a systematic effort to protect users from potential threats and disruptions (Boemiya & Surur, 2022), both criminal and technical (Friman et al., 2020). This includes the presence of trained security personnel, the installation of Closed Circuit Television (CCTV) cameras, the establishment of safe routes, and effective emergency response procedures (Ceccato et al., 2024). Maintaining safety not only protects passengers physically but also enhances their sense of trust and comfort when using the service.

### 2.5. Customer Satisfaction

Customer satisfaction is an evaluative response that arises when service performance meets or exceeds user expectations (Rahayu et al., 2022; Tharmalingam et al., 2022). Factors such as service quality,

price, and ease of access are the main determinants of satisfaction levels (Wibowo et al., 2025). Satisfied customers tend to have higher trust in service providers, thereby increasing the likelihood of using the service again and recommending it to others.

## 2.6. Conceptual Framework and Research Hypotheses



**Figure 1. Conceptual Framework**

Based on the literature review, service quality, price, facilities, and safety are indicated to have a positive relationship with customer satisfaction. This relationship is summarized in a conceptual framework as illustrated in Figure 1. From the conceptual framework above, the research hypothesis constructed is as follows:

*H1: Service quality has a positive effect on customer satisfaction with TransJakarta Bus.*

*H2: Price has a positive effect on customer satisfaction with TransJakarta Bus.*

*H3: Facilities positively influence customer satisfaction with the TransJakarta Bus.*

*H4: Safety positively influences customer satisfaction with the TransJakarta Bus.*

*H5: Service quality, price, facilities, and safety simultaneously have a positive effect on customer satisfaction with TransJakarta Bus.*

## 2.7. Hypothesis Development

### a. The Relationship between Service Quality and Customer Satisfaction

Service quality is a key factor influencing customer satisfaction in the public transportation sector. Previous studies have demonstrated that responsive, friendly, timely, and procedure-compliant service can foster positive perceptions and cultivate customer loyalty (Astuti et al., 2024). A study on DAMRI and Gojek users revealed that good service quality significantly increases satisfaction and the likelihood of using the service (Sinaga et al., 2024). In the context of TransJakarta, improving service quality is expected to have a positive impact on passenger experience and satisfaction.

*H1: Service quality has a positive effect on customer satisfaction with TransJakarta buses.*

b. The Relationship Between Price and Customer Satisfaction

Affordable and proportionate prices relative to service quality are important factors in shaping customer satisfaction. A study by Ilyas & Mustafa (2022) found that competitive prices significantly contribute to the satisfaction of transportation service users. Research by Astuti et al. (2024) also demonstrated that fares that are in line with consumers' purchasing power can encourage sustainable service usage decisions. In TransJakarta services, maintaining affordable fares while ensuring quality is expected to enhance customer satisfaction.

*H2: Price has a positive effect on customer satisfaction with TransJakarta buses.*

c. The Relationship Between Facilities and Customer Satisfaction

Adequate facilities, such as comfortable seating, air conditioning, clean buses, and convenient stop facilities, play a crucial role in enhancing the travel experience. Ilyas & Mustafa (2022) emphasize that supporting facilities have a significant influence on service user satisfaction. Similar findings were observed in Astuti et al.'s (2024) study on intercity bus services, where the availability of good facilities improved consumers' positive evaluations. In the context of TransJakarta, providing adequate facilities is expected to contribute to customer satisfaction.

*H3: Facilities have a positive influence on customer satisfaction with TransJakarta buses.*

d. The Relationship Between Safety and Customer Satisfaction

Public transportation safety encompasses protection from criminal acts, physical safety, and effective emergency response (Rahayu et al., 2022). The study by Sani & Muslim (2025) highlights that safety management based on pentahelix collaboration can reduce accident risks and enhance users' sense of security. Ensuring safety fosters trust and comfort, thereby influencing customer satisfaction (Afrizal et al., 2024). In TransJakarta services, safety is a key factor in determining satisfaction and continued usage.

*H4: Security positively influences customer satisfaction in TransJakarta bus services.*

e. Relationship between Service Quality, Price, Facilities, and Safety on Customer Satisfaction

The four variables — service quality, price, facilities, and safety — form a complementary system in determining customer satisfaction levels. Research by Astuti et al. (2024) and Ilyas & Mustafa (2022) indicates that the combination of these variables simultaneously has a significant influence on customer satisfaction across various public transportation services. Therefore, an integrative evaluation of these four factors is essential for comprehensively understanding customer satisfaction with TransJakarta.

*H5: Service quality, price, facilities, and safety simultaneously have a positive influence on customer satisfaction with TransJakarta buses.*

### III. Research Method

This study employs an explanatory research design with a quantitative approach. This method was chosen because it aims to test the causal relationship between independent variables and dependent variables (Alford & Teater, 2025). The independent variables in this study consist of service quality (X1), price (X2), facilities (X3), and security (X4), while the dependent variable is customer satisfaction (Y) of TransJakarta

Bus. According to Sugiyono (2020), explanatory research is used to explain the cause-and-effect relationship between variables through hypothesis testing.

The research population consists of all users of the TransJakarta bus service in the Jakarta Special Capital Region. The sample size was determined based on Roscoe's theory (Sugiyono, 2020), which recommends a minimum sample size of ten times the number of variables in multivariate analysis. With four research variables, the minimum sample size is 40 respondents ( $4 \times 10$ ). However, to enhance the reliability of the results, this study used 200 respondents selected using purposive sampling (Anderson et al., 2016), with the following criteria: (1) aged at least 17 years, (2) had used the TransJakarta Bus at least twice in the past three months, and (3) were willing to complete the research questionnaire.

The research instrument consists of a questionnaire using a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The indicators for each variable are:

- a. Service Quality: service speed, staff friendliness, punctuality of arrival and departure, and clarity of service information.
- b. Price: affordability of fares, price-quality ratio, and price consistency.
- c. Facilities: comfort of seating, cleanliness of the bus, cleanliness of the bus stop, availability of air conditioning, and other supporting facilities.
- d. Safety: availability of CCTV, presence of security personnel, emergency response, and sense of safety during the trip.
- e. Customer Satisfaction: alignment of services with expectations, overall satisfaction, and willingness to use the service again.

Data collection was conducted in February–March 2025 by distributing questionnaires directly at several main TransJakarta bus stops (Blok M, Harmoni, Dukuh Atas, and Senen), as well as through an online form shared on the TransJakarta user community's social media. Respondents were asked to provide informed consent before completing the questionnaire. The data obtained were analyzed using the Statistical Package for the Social Sciences (SPSS) version 26. First, to test the instrument's validity, Pearson Product-Moment correlation and Cronbach's Alpha ( $\alpha \geq 0.70$ ) were used. The research data were then tested using classical assumption tests, which included normality tests, multicollinearity tests, and heteroskedasticity tests. If the classical assumption tests were met, the data were then analyzed using multiple linear regression to examine the influence of each independent variable on customer satisfaction, as per the equation.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

Y = Customer Satisfaction

X1 = Service Quality

X2 = Price

X3 = Facilities

X4 = Security

To test the hypothesis, the researcher used the F-test (simultaneous) to see the combined effect of the independent variables on the dependent variable ( $p < 0.05$ ). Additionally, the researcher also used the t-test (partial) to test the individual effects of each independent variable ( $p < 0.05$  significant) and the Determination Coefficient (Adjusted  $R^2$ ) to determine the proportion of customer satisfaction variation explained by the independent variables. The limitations of this study include: (1) the use of purposive sampling techniques, which limits the generalizability of the research results; (2) data obtained based on respondents' perceptions, making it susceptible to subjective bias; and (3) the study was conducted during a specific period, failing to capture seasonal changes or new policies that may influence TransJakarta services.

## IV. Results and Discussion

### 4.1. Validity Test

**Table 1. Validity Test Results**

No	Variable	Indicator	r-calculated	r-table	Description
1.	Service Quality	X1.1	0.589	1	Valid
2.		X1.2	0.662	14.17	
3.		X1.3	0.618	14.17	
4.		X1.4	0.621	14.17	
5.		X1.5	0.606	14.17	
6.	Price	X2.1	0.600	14.17	
7.		X2.2	0.560	14.17	
8.		X2.3	0.466	14.17	
9.	Facilities	X3.1	0.615	14.17	
10.		X3.2	0.707	14.17	
11.		X3.3	0.620	14.17	
12.		X3.4	0.454	14.17	
13.		X3.5	0.393	14.17	
14.	Security	X4.1	0.394	14.17	
15.		X4.2	0.516	14.17	
16.		X4.3	0.485	14.17	
17.		X4.4	0.511	14.17	
18.	Customer Satisfaction	Y.1	0.563	14.17	
19.		Y.2	0.510	14.17	
20.		Y.3	0.623	14.17	
21.		Y.4	0.460	14.17	

Validity testing was conducted to ensure that each question in the questionnaire accurately measured the intended variable. The test employed a Corrected Item-Total Correlation, with validity criteria of a correlation value greater than 0.30 (Sugiyono, 2020). Based on the analysis results, all indicators in the variables of Service Quality, Price, Facilities, Security, and Customer Satisfaction have correlation values above 0.30 and significance < 0.05. Thus, all questionnaire items are deemed valid and suitable for use in further analysis.

### 4.2. Reliability Test

**Table 2. Reliability Test Results**

Variable	Cronbach's Alpha Value	Description
Service Quality	0.82	Reliable
Price	0.717	
Facilities	0.775	
Security	0.691	
Customer Satisfaction	0.744	

Reliability testing aims to assess the consistency of respondents' answers to the items in the questionnaire. The test was conducted using Cronbach's Alpha, where a variable is considered reliable if the

alpha value is  $\geq 0.60$  (Sugiyono, 2020). The results of data processing showed that all variables had Cronbach's Alpha values above 0.60. This indicates that all research instruments have high internal consistency.

#### 4.3. Normality Test

**Table 3. Results of Normality Test**

Normal Parameters	Mean	0.000
	Standard Deviation	0.38706
Most Extreme Differences	Absolute	0.05
	Positive	0.03
	Negative	-0.058
Test Statistic		0.05
Asymp. Sig. (2-tailed)		0.2

Normality testing was performed using the Kolmogorov-Smirnov Test. Data was considered normally distributed if the significance value (Asymp. Sig. 2-tailed) was  $> 0.05$ . The test results showed a significance value of 0.200 for the regression model, which means that the data met the normality assumption and could be used for multiple linear regression analysis.

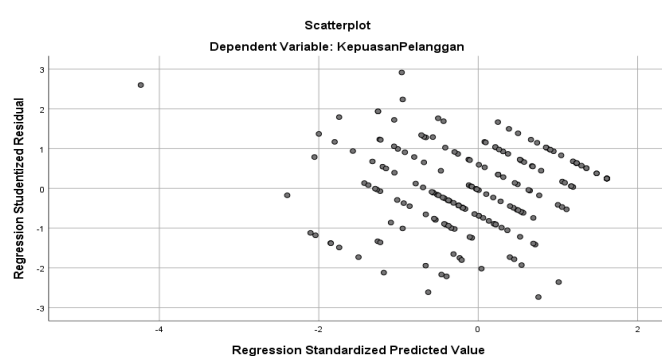
#### 4.4. Multicollinearity Test

**Table 4. Results of Multicollinearity Test**

Model	Unstandardized Coefficients		Standardized Coefficients B	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
(Constant)	1.221	0.219		5.581	0.000		
Service Quality	0.104	0.064	0.121	1.629	0.105	0.456	2.194
Price	0.307	0.059	0.368	5.207	0.000	0.500	2.000
Facilities	0.127	0.045	0.168	2,787	0.006	0.693	1.444
Security	0.200	0.057	0.221	3.503	0.001	0.628	1.594

Multicollinearity testing was used to ensure that there was no high correlation between independent variables. The criteria used were a Tolerance value  $> 0.10$  and a Variance Inflation Factor (VIF)  $< 10$  (Sugiyono, 2020). The test results indicate that all independent variables have a Tolerance value above 0.10 and a VIF below 10, suggesting that there is no multicollinearity problem in this research model.

#### 4.5. Heteroskedasticity Test



**Figure 2. Results of the Heteroscedasticity Test**

#### 4.6. Multiple Linear Regression Analysis

Multiple linear regression analysis was used to measure the effect of Service Quality, Price, Facilities, and Security on Customer Satisfaction. The resulting regression equation is as follows:

$$Y=b_0+b_1 X_1+b_2 X_2+b_3 X_3+b_4 X_4+e$$

The parameter estimation results show that all regression coefficients are positive, meaning that an increase in each independent variable has the potential to increase customer satisfaction.

#### 4.7. T-test (Partial)

**Table 5. T-test Results**

Model	Unstandardized Coefficients		Standardized Coefficients B	t	Sig.
	B	Std. Error			
(Constant)	1.221	0.219		5.581	0.000
Service Quality	0.104	0.064	0.121	1.629	0.105
Price	0.307	0.059	0.368	5.207	0.000
Facilities	0.127	0.045	0.168	2,787	0.006
Safety	0.200	0.057	0.221	3.503	0.001

The T-test was used to determine the partial effect of Service Quality, Price, Facilities, and Security on Customer Satisfaction. The criteria used were a significance value of < 0.05. The basis for the decision was that if the significance value was < 0.05, there was an effect of the independent variable on the dependent variable. In Table 5 above, the Sig. Value for the Service Quality variable is 0.105. Since the Sig. Value of 0.105 is > 0.05; the first hypothesis is rejected. The Sig. value for the Price variable is 0.000. Since the Sig. Value of 0.000 is < 0.05, the second hypothesis is accepted. The Sig. value for the Facilities variable is 0.006. Since the Sig. Value is 0.006 < 0.05, the third hypothesis is accepted. The Sig. value for the Security variable is 0.001. Since the Sig. The value is 0.001 < 0.05; therefore, the fourth hypothesis is accepted.

#### 4.8. F-test (Simultaneous)

**Table 6. F-test results**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	31.267	4	7,817	51,127	0.000
Residual	29,813	195	0.153		
Total	61,080	199			

The F-test was used to determine the simultaneous effect of Service Quality, Price, Facilities, and Security on Customer Satisfaction. The criterion used is a significance level of < 0.05. The test results show a significance level of 0.000 < 0.05. This suggests that all four independent variables collectively have a significant impact on customer satisfaction among TransJakarta Bus users.

#### 4.9. Determination Coefficient Test (Adjusted R<sup>2</sup>)

**Table 7. Results of the Coefficient of Determination Test (Adjusted R<sup>2</sup>)**

Model	R	R	Adjusted R <sup>2</sup>	Standard Error of the Estimate
1	0.715	0.512	0.502	0.39101

The coefficient of determination is used to measure the model's ability to explain the variation in the dependent variable. The data analysis results show an Adjusted  $R^2$  value of 0.512, meaning that Service Quality, Price, Facilities, and Security can explain 51.2% of the variation in customer satisfaction. Meanwhile, the remaining 48.8% is influenced by other factors not included in this research model.

#### 4.10. Discussion

##### a. The Influence of Service Quality on Customer Satisfaction

The results of the partial t-test indicate that service quality does not significantly affect customer satisfaction, with a t-value of 1.629 and significance of 0.105 ( $> 0.05$ ). This condition indicates that service aspects, such as staff friendliness or service procedures, are not the primary factors influencing customer satisfaction with TransJakarta Bus services. Other factors, such as punctuality, ease of access, route availability, and ticket prices, are likely more dominant in shaping customer satisfaction perceptions. Relatively low expectations of public transportation users may also cause improvements in service quality not to increase satisfaction directly. These results differ from those of Astuti et al. (2024) and Sinaga et al. (2024), who found that service quality has a significant influence on users' decisions and satisfaction with transportation services.

##### b. The Effect of Price on Customer Satisfaction

The partial t-test reveals that price has a significant impact on customer satisfaction, with a t-value of 5.207 and a significance level of 0.000 ( $< 0.05$ ). This suggests that affordable ticket prices are a key factor in driving user satisfaction with the TransJakarta Bus. The majority of passengers are cost-conscious individuals, so low fares are perceived as offering greater value compared to other modes of transportation. Low fares also enhance passengers' trust and loyalty in using TransJakarta as their daily transportation option. This finding aligns with the research by Ilyas & Mustafa (2022), which states that competitive prices can improve customer satisfaction, and is further supported by the findings of Astuti et al. (2024) on DAMRI bus users.

##### c. The Influence of Facilities on Customer Satisfaction

The results of the partial t-analysis indicate that facilities have a significant effect on customer satisfaction, with a t-value of 2.787 and significance of 0.006 ( $< 0.05$ ). Facilities such as vehicle cleanliness, seat comfort, air conditioning functionality, and regularity of stops contribute significantly to travel comfort. Passengers also appreciate additional facilities, such as information screens, priority seating, and dedicated bus lanes, which expedite their travel. When facilities meet or exceed expectations, customer satisfaction levels tend to increase, which in turn encourages repeat usage. These findings align with the findings of Ilyas & Mustafa (2022) and Afrizal et al. (2024), who emphasize that adequate facilities directly contribute to user satisfaction with public services.

##### d. The Influence of Security on Customer Satisfaction

Based on the partial t-test, safety has a significant impact on customer satisfaction, with a t-value of 3.503 and a significance level of 0.001 ( $< 0.05$ ). Safety is a crucial factor for public transportation users, as it encompasses a sense of security from potential criminal acts, both inside the bus and at bus stops. The implementation of CCTV, gender-segregated seating, and clear emergency procedures enhances users' perception of safety. High levels of safety not only foster comfort but also strengthen passenger loyalty. These findings align with Sani & Muslim's (2025) research, which emphasizes the role of safety management in enhancing public trust in transportation services, and are consistent with Afrizal et al.'s (2024) findings that safety is a key determinant of customer satisfaction in public services.

##### e. The Influence of Service Quality, Price, Facilities, and Security on Customer Satisfaction

The simultaneous F-test indicates that the four independent variables (service quality, price, facilities, and safety) have a significant effect on customer satisfaction, with an F-value of 51.127 greater than 2.42 and

a significance level of 0.000 ( $< 0.05$ ). This finding confirms that customer satisfaction with TransJakarta Bus is formed through the synergistic interaction between departure punctuality, affordable fares, comfortable facilities, and maintained safety. The results of this study are consistent with the findings of Astuti et al. (2024), Ilyas & Mustafa (2022), and Afrizal et al. (2024), who stated that service quality, cost, facilities, and safety are important determinants of customer satisfaction in transportation and public services. Practically, these results can serve as a foundation for TransJakarta managers and local governments to design integrated service improvement strategies, such as establishing operational standards that integrate price, service, and safety dimensions, as well as optimizing facilities to encourage user loyalty. Additionally, these findings open opportunities for future research to test similar models in other modes of transportation or by incorporating mediating variables such as customer loyalty and perceived value, thereby providing a more comprehensive understanding for the formulation of adequate public transportation policies.

## V. Conclusion

Based on the analysis results, service quality does not significantly affect customer satisfaction with TransJakarta Bus, with a t-value of 1.629 and significance of 0.105. This suggests that other, more significant factors are influencing satisfaction, although improving service quality has the potential to enhance satisfaction in the future. The price variable has a significant effect with a t-value of 5.207 and a significance level of 0.000, indicating that affordable fares are the primary factor in shaping customer satisfaction. Facilities also have a significant influence, with a t-value of 2.787 and a significance level of 0.006, emphasizing the importance of comfort and the completeness of facilities. Safety has a significant influence with a t-value of 3.503 and significance of 0.001, indicating that a sense of safety is an important determinant of satisfaction. The simultaneous F-test indicates that the four variables—service quality, price, facilities, and safety—collectively have a significant influence on customer satisfaction, with an F-value of 51.127 greater than 2.42 and a significance level of 0.000.

The findings of this study reinforce the concept that customer satisfaction in public transportation services is not determined by a single dimension of service, but rather by a combination of various complementary factors. These results align with the findings of Astuti et al. (2024), Ilyas and Mustafa (2022), and Afrizal et al. (2024), which emphasize the simultaneous role of service quality, price, facilities, and safety in shaping satisfaction. The contribution of this study lies in strengthening the theoretical model that explains the multi-dimensional relationship between public service variables and user satisfaction, while also opening opportunities for theoretical development by incorporating moderating or mediating variables such as perceived value, customer loyalty, or travel experience.

In practical terms, the results of this study guide TransJakarta managers and public transportation stakeholders in formulating integrated service improvement strategies. Competitive price increases must be balanced with facility improvements, enforcement of safety standards, and optimization of service quality, including punctuality and travel comfort. Management can adopt a data-driven approach to regularly monitor and evaluate each dimension of service, ensuring that every policy or innovation implemented directly impacts user satisfaction. Additionally, the findings of this study can serve as a foundation for developing more effective and sustainable urban transportation policies, particularly in supporting the shift of the public from private vehicles to public transportation.

## References

A'rachman, F. R., Setiawan, C., Warnadi, Insani, N., & Hijrawadi, S. N. (2022). Spatial Analysis of Public Transportation Accessibility for Pedestrians in Central Jakarta. *IOP Conference Series: Earth and Environmental Science*, 1039(1), 12044. <https://dx.doi.org/10.1088/1755-1315/1039/1/012044>

- Ab. Karim, S. N., Mustafa, M., Haron, S., & Rusli, R. (2024). Service Quality Attributes Affecting The Satisfaction of KTM Komuter Services. *Transportation Planning and Technology*, 48(1), 131–152. <https://doi.org/10.1080/03081060.2024.2331208>
- Affif, A. M. (2021). Pengaruh Desain Fasilitas Halte terhadap Kepuasan Pengguna Bus Trans Metro Deli. *RUANG: Jurnal Lingkungan Binaan*, 8(2), 137-150. <https://doi.org/10.24843/JRS.2021.v08.i02.p05>
- Alahakoon, L., Černeckienė, J., Jansons, L. & Tekshan, W.M.M. (2025). A New Approach to Infrastructure Development in Sri Lanka's Urban Areas. *Baltic Journal of Real Estate Economics and Construction Management*, 13(1), 2025. 68–79. <https://doi.org/10.2478/bjreecm-2025-0006>
- Alford, S., & Teater, B. (2025). "14: Quantitative research". In *Handbook of Research Methods in Social Work*. Cheltenham, UK: Edward Elgar Publishing. Retrieved Aug 11, 2025, from <https://doi.org/10.4337/9781035310173.00023>
- Alsaleh, N. & Farooq, B. (2023). Sustainability Analysis Framework for On-Demand Public Transit Systems. arXiv; Cornell University. <https://arxiv.org/abs/2303.06007>
- Anderson, D. R., et al. (2016). *Statistics for Business & Economics 13E*. South-Western: Cengage Learning.
- Arifah, S., & Hidayah, R. (2021). Pedestrian Perception Based on Sidewalk Level of Convenience at Pemuda Street. *IOP Conference Series: Earth and Environmental Science*, 832(1), 12004. <https://doi.org/10.1088/1755-1315/832/1/012004>
- Ariyani, A., & Fauzi, A. (2023). Pengaruh Harga, Lokasi dan Kualitas Layanan Terhadap Kepuasan Konsumen. *Jurnal Ekonomi Dan Manajemen*, 2(2), 23–28. <https://doi.org/10.56127/jekma.v2i2.710>
- Astuti, D., Heryati, Y., & Hajjad, M. N. (2024). The Effect of Service Quality and Passenger Fares on Consumer Decisions Using DAMRI Buses. *Golden Ratio of Marketing and Applied Psychology of Business*, 4(2), 177–183. <https://doi.org/10.52970/grmapb.v4i2.682>
- Badan Pusat Statistik Provinsi DKI Jakarta. (2025). Jumlah Penumpang Bus Transjakarta Menurut Bulan - Tabel Statistik (1 November 2024). <https://jakarta.bps.go.id/id/statistics-table/2/MTMyNCMy/jumlah-penumpang-bus-transjakarta-menurut-bulan.html>
- Badriyah, N., & Kuswanto, A. (2023). Pengaruh Kualitas Layanan, Akses, Harga, dan Kompetensi Karyawan Terhadap Kepuasan Pelanggan PT Kereta Api Indonesia. *Cakrawala Repositori IMWI*, 6(1), 420-442. <https://doi.org/10.52851/cakrawala.v6i1.249>
- Boemiya, H., & Surur, M. (2022). Implementasi Standar Pelayanan Minimal Bus Antar Kota Dan Antar Provinsi Di Terminal Purabaya Tahun 2021. *Jurnal Pamator: Jurnal Ilmiah Universitas Trunojoyo*, 15(2), 104-121. <https://doi.org/10.21107/pamator.v15i2.18896>
- Bokings, S. H., Nurmandi, A., & Loilatu, M. J. (2020). How Twitter Works in Public Transportation: A Case Study of Bus Rapid Transit in Jakarta and Semarang. *CommIT (Communication and Information Technology) Journal*, 14(2), 53–63. <https://doi.org/10.21512/commit.v14i2.6400>
- Budi, W., & Rofid, F. (2020). Evaluating the Performance of Transjakarta Bus Stops and Road Section Facilities on the Route Pondok Gede-Pulogadung. *IJTI International Journal of Transportation and Infrastructure* EISSN 2597-4769 PISSN 2597-4734, 3(2), 109-120. <https://doi.org/10.29138/ijti.v3i2.1062>
- Ceccato, V., Sundling, C. & Giori, G. (2024). What Makes A Railway Station Safe and For Whom? The Impact of Transit Environments on Passengers' Victimization and Safety Perceptions. *Eur. Transp. Res. Rev.* 16(21). <https://doi.org/10.1186/s12544-024-00641-5>
- Devi, M. K., Pramana, A. Y. E., & Safitri, R. (2022). Studi Komparatif Performa Angkutan BRT Transjogja dan Transjakarta. *Jurnal Pengembangan Kota*, 10(1), 93-103. <https://doi.org/10.14710/jpk.10.1.93-103>
- Friman, M., Lättman, K., & Olsson, L. E. (2020). Public Transport Quality, Safety, and Perceived Accessibility. *Sustainability*, 12(9), 3563. <https://doi.org/10.3390/su12093563>
- Hariyanto, O. I. B., & Rukmandiana, J. (2022). Analisis faktor-faktor yang mempengaruhi kualitas layanan dan dampaknya terhadap kepuasan pengunjung. *Jurnal Inspirasi Bisnis Dan Manajemen*, 6(1), 101–114. <https://doi.org/10.33603/jibm.v6i1.5162>

- Harsritanto, B. I. R., Jamila, R. F., & Villianggie, A. (2020). Evaluation of Transemarang Shelters on Diponegoro University Campus Area. *Civil Engineering and Architecture*, 8(4), 483 - 489. <https://dx.doi.org/10.13189/cea.2020.080411>
- Henmaidi, J. & Yenny, H. (2020). Evaluation of Service Quality of Public Transportation (Case Study of Trans Padang). *IOP Conference Series: Materials Science and Engineering*, 1003(1), 12030. <https://dx.doi.org/10.1088/1757-899X/1003/1/012030>
- Ilyas, B. G., & Mustafa, H. (2022). Price, Promotion, and Supporting Facilities on Customer Satisfaction. *Golden Ratio of Marketing and Applied Psychology of Business*, 2(1), 1–11. <https://doi.org/10.52970/grmapb.v2i1.65>
- Liu, S., & Putro, U.S. (2024). Passenger Service Satisfaction Evaluation of Jakarta-Bandung High-Speed Railway. *European Journal of Business and Management Research*, 9(4), 115–126. <https://doi.org/10.24018/ejbmr.2024.9.4.2432>
- Maheng, D., Pathirana, A., & Zevenbergen, C. (2021). A Preliminary Study on the Impact of Landscape Pattern Changes Due to Urbanization: Case Study of Jakarta, Indonesia. *Land*, 10(2), 218. <https://doi.org/10.3390/land10020218>
- Mers, B., Watkins, K., & Hunter, M. (2023). Demographic Breakdown of Transit Rider Satisfaction. *Transportation Research Record*, 2678(6), 656–666. <https://doi.org/10.1177/03611981231198836>
- Noorsyah, M. N., Widyaningsih, A., & Andriana, D. (2024). Pricing Strategy and Service Quality Improvement to Optimize Customer Satisfaction: a Systematic Literature Review. *International Journal of Business, Law, and Education*, 5(2), 2827 - 2837. <https://doi.org/10.56442/ijble.v5i2.935>
- Nurchahyo, R., Farizal, F., Arifianto, B. M. I., & Habiburrahman, M. (2020). Mass Rapid Transit Operation and Maintenance Cost Calculation Model. *Journal of Advanced Transportation*, 2020(1), 7645142. <https://doi.org/10.1155/2020/7645142>
- Nurhasan, H., & Putro, U. S. (2021). An Analysis of Consumer Behaviors in Choosing Public Transportation. *Journal of Indonesian Applied Economics (JIAE)*, 9(2), 17-26. <https://doi.org/10.21776/ub.jiae.009.02.3>
- Pelangi, E. T., Situmorang, R., Levara, J. C., & Taki, H. M. (2021). Satisfaction level of intermodal public transport passengers at Duri Station, Jakarta, Indonesia. *IOP Conference Series: Earth and Environmental Science*, 737(1), 12053. <https://dx.doi.org/10.1088/1755-1315/737/1/012053>
- Pradonoputro, T. P. B., & Kozo, O. (2021). Understanding Commuters' Motivation for Transportation Choice: A Case Study of Greater Jakarta. *Jurnal Manajemen Transportasi & Logistik (JMTRANSLOG)*, 8(1), 91-105. <http://dx.doi.org/10.54324/j.mtl.v8i1.507>
- Rahardja, S. (2022). Quantification of the Parameters for Motorized Vehicle Traffic at Jalan Jenderal Sudirman, Central Jakarta. *Journal of Science and Technology*, 6(1), 92-102. <https://doi.org/10.19166/jstfast.v6i1.5362>
- Rahayu, A., Suripno, Suhalis, A., Ricardianto, P., & Fachrial, P. (2022). Peningkatan Kepuasan Pelanggan Melalui Pengawasan Petugas TransJakarta. *Jurnal Manajemen Transportasi & Logistik (JMTRANSLOG)*, 9(3), 201-210. <http://dx.doi.org/10.54324/j.mtl.v9i3.736>
- Rahmi, N. A., & Ridhaningsi, F. (2025). Service Quality and Innovation as Drivers of Customer Loyalty: The Mediating Role of Customer Satisfaction in the Context of Indonesian Railways. *Golden Ratio of Marketing and Applied Psychology of Business*, 6(1), 202–216. <https://doi.org/10.52970/grmapb.v6i1.1327>
- Ramadhan, A. W., Wibowo, A., & Saraswati, R. (2021). Spatial Patterns of Carbon Monoxide Distribution to Traffic Jam in East Jakarta. *IOP Conference Series: Earth and Environmental Science*, 940(1), 12010. <https://dx.doi.org/10.1088/1755-1315/940/1/012010>
- Rohmadhon, M. R. (2024). Analisis Kualitas Pelayanan pada Pengguna Transportasi Bus Transjakarta. (Diploma Thesis, Universitas Negeri Jakarta). <http://repository.unj.ac.id/46538/>
- Safrida. (2023). The Effects of Service Quality and Customer Satisfaction on Bus Ticket Prices of PT. Chandra. *Multidisciplinary Output Research for Actual and International Issues (MORFAI)*, 3(2), 338–349. <https://doi.org/10.54443/morfai.v3i2.890>

- Sani, S. A., & Muslim, M. A. (2025). Collaborative Governance in Minimizing Traffic Accidents: Study on the Role of Pentahelix in East Aceh Regency, Indonesia. *Golden Ratio of Social Science and Education*, 5(1), 245–251. <https://doi.org/10.52970/grsse.v5i1.1204>
- Sibarani, E. D. R., & Silitonga, P. (2025). The Influence of Location, Service Quality, and Price Perception on Customer Satisfaction: The Mediating Role of Brand Image. *Golden Ratio of Marketing and Applied Psychology of Business*, 5(2), 539–553. <https://doi.org/10.52970/grmapb.v5i2.1184>
- Silver, K., Lopes, A., Vale, D., & da Costa, N. M. (2023). The Inequality Effects of Public Transport Fare: The Case of Lisbon's Fare Reform. *Journal of Transport Geography*, 112(2023), 103685. <https://doi.org/10.1016/j.jtrangeo.2023.103685>.
- Sinaga, N., Manalu, D., & Simangunsong, R. M. (2024). The Influence of Service Quality and Promotions on Consumer Decision to Use Service Transportation online Gojek. *Golden Ratio of Data in Summary*, 4(2), 256–261. <https://doi.org/10.52970/grdis.v4i2.545>
- Sitorus, A. M. H. (2022). Sistem Transportasi Terintegrasi di DKI Jakarta: Analisis Transformasi Berkeadilan Sosial. *Jurnal Sosiologi Andalas*, 8(1), 31–41. <https://doi.org/10.25077/jsa.8.1.31-41.2022>
- Sugiyono. (2020). *Metode Penelitian Kuantitatif, Kualitatif dan Kombinasi (Mixed Methods)*. Bandung : Alfabeta.
- Tharmalingam, S. D., Mei Ling, S., Vija-Kumaran, V., Kalimuthu, K. V., & Nodeson, S. (2022). Customer Satisfaction on Public Transportation in Penang, Malaysia. *INTI Journal*, 2022. Retrieved from <https://iuojs.intimal.edu.my/index.php/intijournal/article/view/157>
- Wibowo, V. A., Atmini, N. D., & Yulianto, H. (2025). Persepsi Harga dan Kualitas Layanan Terhadap Kepuasan Pelanggan BRT Trans Jateng Semarang–Grobogan. *Wawasan: Jurnal Ilmu Manajemen, Ekonomi dan Kewirausahaan*, 3(1), 58-70. <https://doi.org/10.58192/wawasan.v3i1.2776>