Evaluating Service Quality and User Satisfaction of Bus Services from Passenger's Perspective in Greater Jakarta: A Comparative Analysis of Intercity and CityBus

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Abstract. As part of urban public transport performance, bus service quality is an important factor affecting the choice of passenger travel mode. This paper aims to assess the service quality and user satisfaction of two significant intercity bus services in the Jabodetabek region: Intercity bus (Transjabodetabek) and CityBus (Biskita Transpakuan). It is composed of 6 first-level indexes (Operational, Comfort, Security, Safety, Disability and Elderly Facilities, Facilities for Women and Pregnant Women Passengers) and 21 second-level indexes. Considering the scale of bus service in Greater Jakarta, this research carried out a stratified sampling intercity (Transjabodetabek) bus customers with routes Bubulak-Grogol, Bubulak-Rawamangun, Bubulak-Blok M, and Bubulak-Tanah Abang and citybus (Biskita Transpakuan) serving 4 corridors with a total of 49 fleets. The study compares user perceptions, satisfaction levels, and identifies areas for improvement. Utilizing multiple linear regression analysis and Importance Performance Analysis (IPA), this research provides insights into factors influencing customer satisfaction and offers recommendations for enhancing service quality. After testing the reliability and validity of the indicator system, the paper proposes a satisfaction evaluation model weighted by the related coefficient. The results show that overall satisfaction score is satisfaction rate for the intercity bus service (Transjabodetabek) stands at 63.2%, while the satisfaction rate for the city bus service (Biskita Trans Pakuan) is higher, at 72.79%. Comparison between the intercity bus (Transjabodetabek) and city bus (Biskita Trans Pakuan) shows that city bus customers have a higher satisfaction rate. Conclusions can be drawn that the satisfaction score of the intercity bus service is the lowest, which is mainly influenced by factors such as longer waiting times, less frequent service, and insufficient information on bus arrival times. The research provides positive contributions toward normalizing performance evaluation for public transportation and enhancing the sustainable development of bus.

Keywords: Public Transport, Passenger Satisfaction, Bus Service Quality, Intercity and city bus.

1 Introduction

As urbanization accelerates in Indonesia, particularly in the Greater Jakarta area (Jabodetabek), has led to a growing need for effective and dependable public transit

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networks. The Jabodetabek region, which is inhabited by a large population, is confronted with substantial traffic congestion and environmental issues. Therefore, it is imperative to improve public transportation to achieve sustainable urban development. Intercity buses are essential for daily commuting, especially for citizens travelling from satellite communities such as Bogor to the busy capital of Jakarta.

The measurement of customer satisfaction in the public transport system has practical importance for the decision-making process associated with it. Being a public service in Greater Jakarta, the bus service must enhance mobility and achieve highest levels of customer satisfaction by delivering exceptional performance. Hence, it is vital to understand the crucial elements in the journey process of public transit by evaluating bus passenger happiness and augmenting the quality of public transport services. This will increase the appeal of public transportation and facilitate the sustainable growth of urban traffic.

Precise measurement of passenger satisfaction could guide decision-making and enhance operational planning in public transit. Considerable research has been dedicated to evaluating passenger satisfaction and assessing the efficacy of public transit. Previous research has been undertaken on the fields of index system development [1,2], evaluation methodology [2,3], and study of influencing elements [4,5].

Certain studies frequently construct a satisfaction matrix that considers many aspects, including comfort, ease, and safety. Jiang et al. [6] established a railway passenger satisfaction evaluation system by considering parameters such as ticket price, speed, comfort, convenience, and security. Das and Pandit (7) considered factors such as ticket price, distance between the embarkation and destination points, waiting time at the platform, and overall cost. For their study, Kesten and ÖËüt [8] employed six metrics: time, cost, accessibility and transfer, comfort, safety-security, and quality of service. Craig Morton et al [9] developed a factor analysis to identify three attitudes towards the perceived quality of bus service. These attitudes encompassed concerns related to convenience, cabin environment, and simplicity of use. Juan and colleagues [10] presented a structural equation model to examine the correlation between several factors including "Satisfaction", "Perceived costs", and "Attractive alternatives".

Two major bus services, Intercity (Transjabodetabek) and Citybus (Biskita Transpakuan) have arisen to meet the transportation demands of these groups. The Transjabodetabek service, launched by the Ministry of Transportation in 2015, seeks to offer a dependable and effective transportation choice for commuters commuting along routes like Bubulak-Grogol and Bubulak-Blok M. Similarly, Citybus (Biskita Transpakuan), a transportation service that commenced operations in November 2021, provides improved connection and accessibility throughout the Bogor area through many corridors.

Considering the importance of these services in enhancing the daily lives of commuters, it is essential to assess their effectiveness and consumer contentment. Commuters' opinions and general satisfaction are directly influenced by the quality of service offered by public transportation networks. Hence, operators must comprehend the determinants that impact customer satisfaction to improve their services and fulfil the expectations of their users.

This study aims to assess and compare the service quality and user satisfaction of Intercity (Transjabodetabek) and Citybus (Biskita Transpakuan) using indicators aligned with the Minimum Service Standards (MSS) set by the Indonesian Ministry of Transportation. By employing a mixed-method approach, including multiple linear regression analysis and Importance Performance Analysis (IPA), this research seeks to identify the key attributes affecting user satisfaction and provide actionable recommendations for service improvements. Ultimately, this paper will contribute to a better understanding of the role of intercity bus services in Jabodetabek and their significance in promoting efficient public transportation in urban Indonesia.

2 Method

The research employs a descriptive approach that combines qualitative and quantitative methods through surveys. This approach is used to detail the facts and phenomena observed in the field, focusing on evaluating the quality of service provided by intercity and city buses. The study seeks to understand how these bus operators serve the public by conducting interviews.

2.1 Population and Sample

Intercity Bus (Transjabodetabek): The population under examination in this study consists of passengers who utilize Intercity bus services on the Bubulak-Blok M, Bubulak-Rawamangun, and Bubulak-Tanah Abang routes. The population, as defined by Sumarni (2006:69), refers to the complete set of individuals being studied, including both limited and limitless variations. The target demographic for this inspection consists of passengers who utilize Transjabodetabek bus services on the Bubulak-Blok M, Bubulak-Rawamangun, and Bubulak-Tanah Abang routes. The sampling method employed in this study is incidental sampling, which involves selecting individuals who are encountered unintentionally. Sugiyono (2012: 67) defines coincidence checking as a testing technique that depends on the chance to directly interact with a researcher or can serve as an illustration of whether someone you encounter is suitable to be a source of data.
Citybus (Biskita Transpakuan): Data collection was carried out at various stops, including Bubulak Terminal stop, SBJ 1 stop, SBJ 2 stop, Ruko Yasmin 1 stop, Ruko Yasmin 2 stop, Semplak stop, Radar Bogor stop, Transmart stop, UIKA 1 stop, UIKA 2 stop, bus stop Warung Jambu, SDN Bangka stop, Taman Expression stop, Disdik stop. Apart from filling in offline, they can also fill in online using Google Form.

Sample data: A combined total of 100 respondents were acquired using both online and offline techniques.

2.2 Classical Assumption Test

The normality test, as demonstrated by Husein Umar (2011:182), examines whether the dependent variable, independent variable, or both exhibit normal or near-normal properties. In accordance with Singgih Santoso's (2002) perspective, decision making must be contingent upon probability or asymptotic importance, namely:
1. A population distribution is considered normal if the probability is greater than 0.05.
2. A probability less than 0.05 indicates that the population distribution is insignificant.

The purpose of the multicollinearity test is to determine if the regression model identifies statistically significant relationships among independent variables. An effective method for detecting multicollinearity may be observed by examining the relationship grid of the independent variables. Within the relationship framework, a strong correlation that exceeds 0.90 between the independent variables indicates the presence of multicollinearity. Furthermore, the values can also be measured in terms of tolerance and variance inflation factor (VIF). The tolerance threshold is less than 0.10 or the proportion of the VIF value that exceeds 10 (Imam Ghozali, 2018: 108).
The purpose of the heteroscedasticity test is to determine if there is a difference in the observed changes between consecutive perceptions in the regression model (Imama Ghozali, 2013:139). Using the Glejser test (Gujarati, 2003) as cited by Imam Ghozali (2018:142), heteroscedasticity testing was conducted. The Glejser test involves regressing the absolute residual value against the independent variable. The presence of heteroscedasticity is shown when the independent variable exerts a substantial impact on the dependent variable.

2.3 The Importance Performance Analysis (IPA) Method

Initially proposed by Martilla and James in 1977 (as cited in Tjiptono, 2019), serves a distinct purpose. Quadrant analysis is the process of evaluating the correlation between customer perceptions and the level of importance placed on enhancing the quality of a product or service. The concept was first suggested by Brant and Latu Everett in 2015, as cited in Tjiptono's 2011 publication.

2.4 The Customer Satisfaction Index (CSI) Method

Referred to as the consumer satisfaction index, is utilized to assess the overall level of customer satisfaction. This is achieved by considering the significance of product or service indicators, measured as the percentage of satisfied customers in a customer satisfaction survey.
The number of samples in this study to obtain the number of respondents can be calculated using the Slovin formula (Umar, 2003), namely: $n = \frac{N}{1+Ne^2}$ …. (1)

N = Total Population
n = Required Sample Size
e = The percentage of allowance for inaccuracy due to sampling errors that is still tolerable or desirable is set at 10%.

n = 152,082 / 1 + 152,082 (0.1)²n = 152.082 / 1 + 152.082 (0,01)
n = 152.082 / 1 + 1.520,82
n = 152.082 / 1.520,82
n = 100 Sample

3 Result and Discussion

3.1 Normality Test Result

Using the one-sample Kolmogorov-Smirnov Test, Imam Ghozali (2018:31) states that the testing of the normality of the data is carried out. If the probability of asymp.sig α is more than 0.05, then the research data is considered to be normally distributed.

Table 1. Normality Test Result

One Sample Kolmogorov-Smirnov Test			
			Unstandardized Reidual
N			100
Normal parameters[ab]	Mean		0,0000000
	Std. Deviation		0,28946318
Most Extreme Differences	Absolute		0,124
	Positive		0,124
	Negative		-0,090
Test Statistic			0,124
Asymp. Sig. (2-tailed)			0,001[c]
Monte Carlo Sig. (2-tailed)	Sig		0,087[d]
	99% Confidance Interval	0,079	0,079
		0,094	0,094

Source : SPSS 25 (2021)

According to table 1, the outcomes of the One-Sample Kolmogorov - test yielded an asymptotic significance using the Monte Carlo Sig. (2-tailed) method, which was found to be 0.87 ≥ 0.05 levels of significance. Considering that the significant value of the normality test for every variable is higher than the threshold of α = 0.05, which is 0.87, which is greater than 0.05.

Statistical multicollinearity assesses the extent to which one independent variable can be accurately described by the other independent variables. Indicative of multicollinearity is the ability of the other independent variables to effectively reflect the one independent variable. The present work conducted a multicollinearity test by examining the Variance Inflation Factor (VIF) value in the regression model. The VIF value was found to be below 10 and the lowest tolerance value was set at 0.1. Consequently, it can be concluded that the model is devoid of multicollinearity.

Table 2. Multicollinearity Test Results

	Understandard Coefficients		Standardized Coefficients	t	Sig.	Collonearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-0,571	0,455		-1,254	-0,571		
X1	0,061	0,006	0,637	10,284	1,000	0,988	1,012
X2	0,035	0,005	0,412	6,646	1,000	0,988	1,012

X1: Bus Stop Facility Service, X2: Bus Facility Service

From Table 2 it can be seen that the value tolerance of the bus stop service quality variable is 0.988 and the bus service quality is 0.988 which has means more than 0.10 and VIF is less than 10, namely VIF= 1.012 < 10. So it can be concluded that the regression model does not occur multicollinearity.

On the assumption that the error terms are normally distributed, the heteroscedasticity in a linear regression model is considered to be present. The purpose of this test is to determine whether or not the values of the independent variables have an effect on the variance of the errors that result from a regression. Under the assumption that the importance value is greater than the 5% confidence level, the probability (probability) outcome ought to be considered critical. The findings of the heteroscedasticity test for bus stops and bus facilities are contained in Table 3, which can be seen here.

Table 3. Heteroscedasticity Test Results

	Understandard Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-0,571	0,455		-1,254	1,000
X1	0,061	0,006	0,637	10,284	1,000
X2	0,035	0,005	0,412	6,646	1,000

X1: Bus Stop Facility Service, X2: Bus Facility Service

3.2 IPA (Importance Performance Analysis) for City Bus (BisKita Transpakuan)

An Importance-Performance Analysis (IPA) is a valuable method for finding the specific characteristics of a product or service that require the most improvement or are

potential candidates for cost-saving measures without causing considerable harm to overall quality. The level of assessment importance indicates the preferences of the consumer about the services they use. The performance level of Bis Kita Trans Pakuan is graphically represented in the image below.

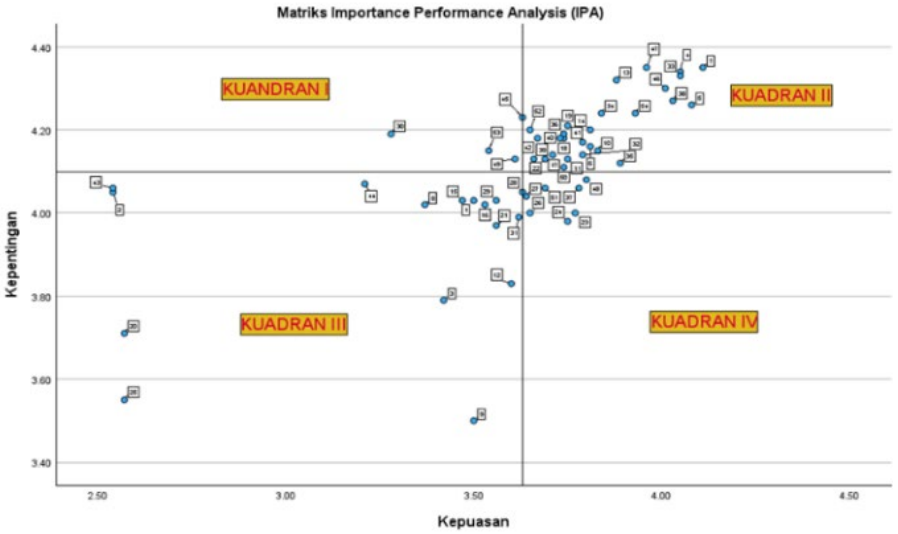

Fig. 1. Matrix Importance Performance Analysis (IPA) of City Bus (BisKita Transpakuan)

Indicator Description:
(1) Lighting at bus stops, (2) Existence of Security officers at bus stops, (3) Information of security disturbances at bus stops, (4) Vehicle identification data, (5) Driver identification, (6) Danger of signal lights, (7) Lighting, (8) Existence of Security officers on the bus, (9) Use of window film, (10) Standard operational procedures for operating vehicles, (11) Standard operational procedures for handling emergencies, (12) Driver Rest hours, (13) Vehicle Roadworthiness, (14) Safety equipment, (15) Health facilities, (16) Emergency response information, (17) Handrail facilities for standing passengers, (18) Passenger exit and entry doors, (19) Tires, (20) Curtain rails on windows, (21) Speed limiting devices, (22) Handrails, (23) Driver's entry and exit doors, (24) Electricity for audio visual, (25) Safety belts, (26) Traffic and road transport equipment, (27) Storage facilities and vehicle maintenance, (28) Lighting at bus stops, (29) Room temperature control or air ventilation facilities at bus stops, (30) Cleaning facilities at bus stops, (31) Floor area per person at bus stops, (32) Passenger boarding and disembarking facilities at bus stops, (33) lighting on the bus, (34) transport capacity on the bus, (35) room temperature control facilities on the bus, (36) hygiene facilities on the bus, (37) floor space for standing per person on board Buses, (38) Prohibition of smoking, (39) Ease of passenger movement between corridors, (40) Availability of passenger route network integration, (41) Fare, (42) Priority seats, (43) Special space for wheelchairs, (44) Slope special floors and textures, (45) Waiting Time, (46) Travel Speed,

(47) Stop Time at Bus Stops, (48) Service Information, (49) Bus Arrival Time Information, (50) Entry and Exit Access to Bus Stops, (51) Information on stops that will be passed, (52) Accuracy & certainty of bus arrival & departure schedules, (53) Information on bus trip disruptions, (54) Payment system.

The IPA matrix is divided into four quadrants, describing the different circumstances of each treatment and indicator studied, namely:

1. Quadrant I
   Quadrant I is a priority area, because it is considered very important by consumers, but Trans Pakuan has not implemented it according to consumer expectations. Therefore, handling needs to be prioritized. Indicators included in this quadrant are Cleanliness facilities at bus stops (30), Waiting Time (45), Bus arrival time information (49), Bus trip disruption information (53)
2. Quadrant II
   This area includes indicators that are considered important and Trans Pakuan's performance is in accordance with consumers, so consumers feel satisfied. This quadrant is Trans Pakuan's achievement in providing services, so it needs to be maintained. This area consists of indicators: Vehicle identity (4), Driver identification (5), Danger signal lights (6), Lighting lights (7), Standard operational procedures for operating vehicles (10) Standard operational procedures for handling emergencies (11) , Vehicle roadworthiness (13), Safety equipment (14), Handrail facilities for standing passengers (17), Passenger entry and exit doors (18), Tires (19), Handrails (22), Passenger boarding and alighting facilities at bus stops (32), Lighting on the Bus (33), Transport Capacity on the Bus (34), Room Temperature Control Facilities on the Bus (35), Hygiene Facilities on the Bus (36), Prohibition of Smoking (38), Ease of moving passengers between corridors (39), Availability of passenger route network integration (40), Tariffs (41), Priority seats (42), Travel Speed (46), Stop Time at Bus Stops (47), Entry and Exit Access to Bus Stops (50), Timetable Accuracy & Certainty Bus Arrival & Departure (52), Payment System (54)
3. Quadrant III
   Quadrant III is an area that contains indicators that are considered less important by consumers and the performance of ordinary Trans Pakuan. This quadrant consists of the following indicators: Lighting at bus stops (1), Security officers at bus stops (2), Information about security disturbances at bus stops (3), Security officers on buses (8), Use of window film (9), Break times. driver (12), Health facilities (15), Emergency response information (16), Curtain rails on windows (20), Speed limiting devices (21), Safety belts (25), Lighting at bus stops (28), Temperature control facilities Space or Air Ventilation at Bus Stops (29), Floor Area Per Person at Bus Stops (31), Special space for wheelchairs (43), Floor slope and special textures (44)
4. Quadrant IV
   This quadrant contains indicators that are considered not very important by consumers, but Trans Pakuan's performance exceeds consumer expectations. This quadrant consists of the following indicators: Driver's entrance and exit (23), Electricity for audio visual (24), Traffic and road transport equipment (26), Vehicle storage and maintenance facilities (27), Standing floor area per person in the bus (37), Service Information (48), Information on Bus Stops to be Passed (51)Please try to

avoid rasterized images for line-art diagrams and schemas. Whenever possible, use vector graphics instead (see **Error! Reference source not found.**).

3.3 CSI (Customer Satisfaction Index) city bus (BisKita Transpakuan)

The Customer Satisfaction Index (CSI) is a quantitative measure that assesses the level of customer satisfaction with an organization or a particular product or service. Its distinguishing feature and advantage lies in its comprehensive and integrated nature. In addition to assessing general satisfaction, the CSI quantifies The Comprehensive Service Index (CSI) is a method used to assess the general degree of satisfaction by examining the actuality of each minimum service standard indication that will be evaluated. To ascertain the CSI value, a total of 54 distinct comprehensive bus service criteria have been explicitly chosen. A performance evaluation survey was carried out on Trans Pakuan passengers to measure their satisfaction level using a five-point Likert scale. The table below displays the comprehensive analysis findings of the CSI calculation.

Table 4. Result of CSI Calculation

Indicator Number	Average Level of Interest (RKPT)	Weighted Factor (WF) = (RKPT/ 221,34)	Average Performance Level (RKPU)	Weighted Score (WS) = (RKPU*WF)
1	4,03	1,821	3,5	6,37
2	4,05	1,830	2,54	4,65
3	3,79	1,712	3,42	5,86
4	4,34	1,961	4,05	7,94
5	4,26	1,925	4,08	7,85
6	4,16	1,879	3,81	7,16
7	4,35	1,965	4,11	8,08
8	4,02	1,816	3,37	6,12
9	3,5	1,581	3,5	5,53
10	4,15	1,875	3,83	7,18
11	4,13	1,866	3,75	7,00
12	3,83	1,730	3,6	6,23
13	4,32	1,952	3,88	7,57
14	4,2	1,898	3,81	7,23
15	4,03	1,821	3,47	6,32
16	4,02	1,816	3,53	6,41
17	4,14	1,870	3,71	6,94
18	4,18	1,888	3,74	7,06
19	4,21	1,902	3,75	7,13
20	3,71	1,676	2,57	4,31
21	3,97	1,794	3,56	6,39
22	4,13	1,866	3,69	6,89
23	4	1,807	3,77	6,81
24	3,98	1,798	3,75	6,74

Indicator Number	Average Level of Interest (RKPT)	Weighted Factor (WF) = (RKPT/ 221,34)	Average Performance Level (RKPU)	Weighted Score (WS) = (RKPU*WF)
25	3,55	1,604	2,57	4,12
26	4	1,807	3,65	6,60
27	4,04	1,825	3,64	6,64
28	4,05	1,830	3,63	6,64
29	4,03	1,821	3,56	6,48
30	4,19	1,893	3,28	6,21
31	3,99	1,803	3,62	6,53
32	4,14	1,870	3,79	7,09
33	4,33	1,956	4,05	7,92
34	4,24	1,916	3,84	7,36
35	4,12	1,861	3,89	7,24
36	4,19	1,893	3,74	7,08
37	4,06	1,834	3,78	6,93
38	4,27	1,929	4,03	7,77
39	4,13	1,866	3,66	6,83
40	4,18	1,888	3,73	7,04
41	4,17	1,884	3,79	7,14
42	4,18	1,888	3,67	6,93
43	4,06	1,834	2,54	4,66
44	4,07	1,839	3,21	5,90
45	4,23	1,911	3,63	6,94
46	4,3	1,943	4,01	7,79
47	4,35	1,965	3,96	7,78
48	4,08	1,843	3,8	7,00
49	4,13	1,866	3,61	6,74
50	4,11	1,857	3,74	6,94
51	4,06	1,834	3,69	6,77
52	4,2	1,898	3,65	6,93
53	4,15	1,875	3,54	6,64
54	4,24	1,916	3,93	7,53
Total	221,34	100,00	196,02	363,95
Customer Satisfaction Index				**72,79**

The 54-indicator includes: (1) Lighting at bus stops, (2) Security officers at bus stops, (3) Information about security disturbances at bus stops, (4) Vehicle identification, (5) Driver identification, (6) Danger signal lights, (7) Lights lighting, (8) Security officers on the bus, (9) Use of window film, (10) Standard operational procedures for operating vehicles, (11) Standard operational procedures for handling emergencies, (12) Driver rest hours, (13) Vehicle roadworthiness, (14) Safety equipment, (15) Health facilities, (16) Emergency response information, (17) Handrail facilities for standing passengers, (18) Passenger exit and entry doors, (19) Tires, (20) Curtain rails on windows, (21) Speed limiting devices, (22) Handrails, (23) Driver's entry and exit doors, (24) Electricity for audio visual, (25) Safety belts, (26) Traffic and road transport equipment,

(27) Storage facilities and vehicle maintenance, (28) Lighting at bus stops, (29) Room temperature control or air ventilation facilities at bus stops, (30) Cleaning facilities at bus stops, (31) Floor area per person at bus stops, (32) Passenger boarding and disembarking facilities at bus stops, (33) lighting on the bus, (34) transport capacity on the bus, (35) room temperature control facilities on the bus, (36) hygiene facilities on the bus, (37) floor space for standing per person on board Buses, (38) Prohibition of smoking, (39) Ease of passenger movement between corridors, (40) Availability of passenger route network integration, (41) Fare, (42) Priority seats, (43) Special space for wheelchairs, (44) Slope special floors and textures, (45) Waiting Time, (46) Travel Speed, (47) Stop Time at Bus Stops, (48) Service Information, (49) Bus Arrival Time Information, (50) Entry and Exit Access to Bus Stops, (51) Information on stops that will be passed, (52) Accuracy & certainty of bus arrival & departure schedules, (53) Information on bus trip disruptions, (54) Payment system.

Analysing CSI, the extent of users' overall satisfaction with the Citybus (Biskita Transpakuan) can be well estimated. Through the application of CSI calculations, research findings show a value of 72.79% (0.73) which indicates that consumer satisfaction is in the range of 0.51-0.65. This shows that overall Trans Pakuan bus consumers are categorized as satisfied, making the overall performance of Trans Pakuan at Corridor 1 services is satisfactory.

3.4 IPA (Importance Performance Analysis) for Intercity (Transjabodetabek)

This study uses two independent variables, namely the Transjabodetabek bus stop facility service (X1) and the Transjabodetabek bus facility service (X2). These two variables will be "confronted" with one dependent variable, namely the level of service satisfaction (Y).

Service Assessment of bus stop facilities

Data on service satisfaction of bus stop facilities was obtained from a questionnaire consisting of 22 questions answered by 100 respondents, the lowest score was 2.09, the highest score was 2.91, the average score was 2.46 (see: Table 5).

Table 5. Results of descriptive analysis of service satisfaction of bus stop facilities.

Variable	Category	Score	Description
Accessibility	Distance from Residence to Bus Stop	2,83	Satisfied
	Distance from Bus Stop to Activity Location	2,91	Satisfied
Comfort	Roof	2,86	Satisfied
	Lighting	2,73	Satisfied
	Temperature Control	2,75	Satisfied
	Seating Comfort	2,59	Satisfied
	Number of Seating	2,47	Dissatisfied
	Cleaning Facilities	2,44	Dissatisfied
	Stairs	2,66	Satisfied
	No Smoking Signs	2,33	Dissatisfied
Security	Security Officers	2,41	Dissatisfied

	Emergency Call Boxes	2,14	Dissatisfied
	Surveillance Cameras	2,09	Dissatisfied
Safety	Emergency Response Information	2,31	Dissatisfied
	Entrance and Transfer Facilities	2,68	Satisfied
Disability and Elderly Facilities	Bus Stop Entrance	2,51	Satisfied
	Seating	2,39	Dissatisfied
	Bus Alighting Facilities	2,37	Dissatisfied
Facilities for Women and Pregnant Women Passengers	Special Area	2,19	Dissatisfied
	Information Boards	2,20	Dissatisfied
	Special Access In and Out	2,17	Dissatisfied

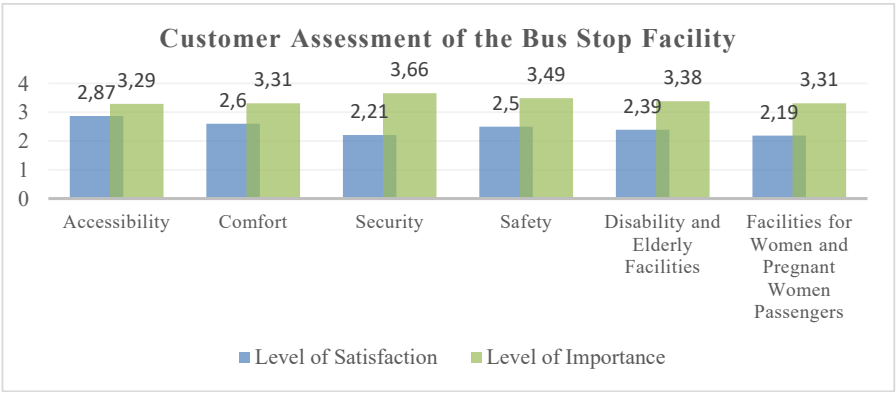

Fig. 2. Cumulative analysis of service satisfaction of bus stop facilities.

Based on Figure 2, it can be seen that the cumulative assessment of service satisfaction of bus stop facilities resulted in the lowest score of 2.19, the highest score of 2.87, the average score of 2.46 in the unsatisfactory category.

Service Assessment of bus facilities

Data on the satisfaction of bus service facilities was obtained from a questionnaire consisting of 22 questions answered by 100 respondents, the lowest score was 2.44, the highest score was 2.99, the average score was 2.67 (see: Table 6).

Table 6. Results of descriptive analysis of service satisfaction of bus facilities

Variable	Category	Score	Description
Operational	Bus Waiting	2,77	Satisfied
	Time Travel	2,92	Satisfied
	Fares	2,99	Satisfied
	Time Stop	2,92	Satisfied
	Time Operating Hours	2,81	Satisfied
	Ticket System	2,92	Satisfied
Comfort	Roof	2,69	Satisfied

	Lighting	2,92	Satisfied
	Temperature Control	2,69	Satisfied
	Seating Comfort	2,87	Satisfied
	Number of Seating	2,88	Satisfied
	Cleaning Facilities	2,94	Satisfied
	Stairs	2,73	Satisfied
	No Smoking Signs	2,55	Satisfied
Security	Security Officers	2,44	Dissatisfied
	Emergency Call Boxes	2,69	Satisfied
	Surveillance Cameras	2,60	Satisfied
Safety	Emergency Response Information	2,65	Satisfied
	Entrance and Transfer Facilities	2,62	Satisfied
Disability and Elderly Facilities	Bus Stop Entrance	2,64	Satisfied
	Seating	2,65	Satisfied
	Bus Alighting Facilities	2,53	Satisfied
Facilities for Women and Pregnant Women Passengers	Special Area	2,50	Dissatisfied
	Information Boards	2,46	Dissatisfied
	Special Access In and Out	2,73	Satisfied

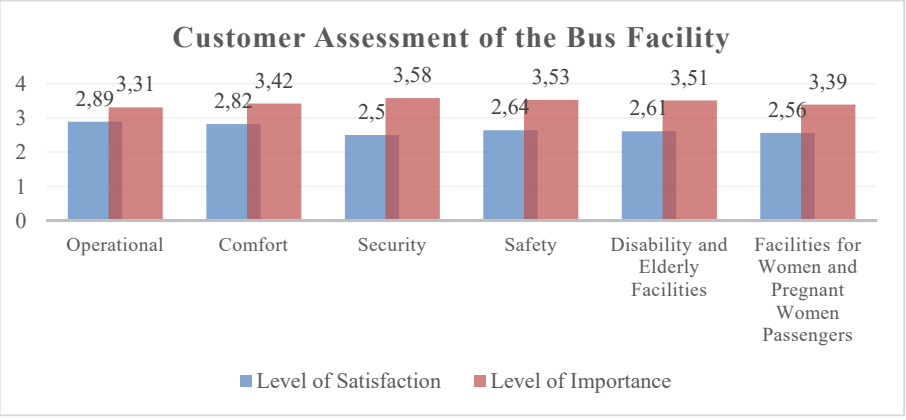

Fig. 3. Cumulative analysis of service satisfaction of bus facilities

Based on Figure 3 can be seen cumulative service satisfaction rating bus facility produced the lowest score of 2.50, the highest score of 2.89 the average score of 2.67 with a satisfactory. Category, however retained earnings value the average satisfaction of service facilities for bus stops and facilities gets a score of 2.56 with category satisfactory.

4 Conclusion

An examination of both the intercity (Transjabodetabek) and citybus (Trans Pakuan) bus services provides valuable insights into the quality of service and the level of passenger satisfaction. Our comprehensive evaluation of public transportation services provides critical insights into the factors influencing customer satisfaction. Our analysis of intercity (Transjabodetabek) buses reveals that the quality of bus stop facilities and bus services significantly impacts customer satisfaction, accounting for 63.2% of the variation in satisfaction levels. This finding underscores the importance of maintaining high standards in these areas to ensure a positive customer experience. In addition, our examination of citybus (Biskita Trans Pakuan) service, utilizing the, shows a generally favorable customer satisfaction with a CSI score of 72.79%. Although the feedback is largely positive, our assessment identifies specific areas needing improvement, such as bus stop cleanliness, waiting times, and the provision of timely information. Together, our findings emphasize that while high service quality is essential for customer satisfaction, ongoing improvements in specific service attributes are necessary to meet and exceed customer expectations across different public transportation services.

Acknowledgments. To enhance the quality of public transportation services, ensuring that they meet and exceed passenger expectations through targeted improvements and continued research.

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