Analysis of the Level of Passenger Satisfaction with the Performance of BISKITA Trans-Bekasi Patriot Service

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ABSTRACT

Public transportation has a strategic role in improving the mobility of urban communities, including Bekasi City, which faces congestion challenges due to the growth of private vehicles that are not balanced with road infrastructure. The BISKITA Trans Bekasi Patriot service comes as a solution to reduce congestion and provide efficient public transportation. This study aims to analyze passenger satisfaction with the service, identify factors that affect satisfaction, and provide recommendations for improving service quality. The research method used is descriptive quantitative with a survey approach, using the SERVQUAL (Service Quality) technique to measure the gap between expectations and reality of services, as well as the Customer Satisfaction Index (CSI) to assess the overall level of satisfaction. Data was obtained through questionnaires distributed to 100 respondents with a purposive sampling technique. The results showed passenger satisfaction was in the "Satisfied" category, with a CSI value of 80.71%. The dimension with the most significant gap is Tangible (-3.78), especially in the indicators of bus stop seating comfort and bus stop cleanliness. In contrast, the reliability dimension has the smallest gap, which shows that the performance is closest to passenger expectations. The conclusion of this study confirms that although the service is quite adequate, improvements are still needed in bus stop facilities, especially cleanliness and comfort, as well as improving the quality of service of officers through training that focuses on friendliness and responsiveness. By implementing these recommendations, it is hoped that the BISKITA Trans Bekasi Patriot service can continue to increase passenger satisfaction and support the efficiency of community mobility in Bekasi City.

Keywords: public transportation, passenger satisfaction, SERVQUAL, customer satisfaction index, gap analysis

INTRODUCTION

Public transportation plays a vital role in supporting the mobility of urban communities, including Bekasi City, which faces congestion due to an increase in the number of private vehicles that are not matched by road infrastructure. As a solution, BISKITA Trans Bekasi Patriot comes through the collaboration of the Jabodetabek Transportation Management Agency (BPTJ) and the Bekasi City Government with the BTS (Buy The Service) scheme. This service is integrated with Jabodebek LRT and serves the Summarecon Bekasi - Vida Bantar Gebang route. BISKITA is designed to provide safety and convenience through a cashless payment system and government standard-based services.

In the last six months, the number of BISKITA passengers has increased significantly, from an average of 32.116 daily passengers in April 2024 to 70.061 in October 2024. This shows the public's positive response to a service that is considered affordable and convenient. However, challenges in the form of traffic congestion along the route often cause delays, which affect passenger confidence. According to Nasution (2004), punctuality is an important dimension of public transportation, which, if not met, can reduce passenger satisfaction.

Research on the level of passenger satisfaction of BISKITA Trans Bekasi Patriot using the SERVQUAL model (physical evidence, reliability, responsiveness, assurance, empathy) aims to evaluate service performance from the user's perspective. This analysis is essential to find out aspects that need improvement to improve service

quality. The research results are expected to be the basis for public transportation managers and local governments in formulating policies to improve service efficiency and effectiveness while encouraging people to switch from private vehicles to public transportation to reduce congestion and realize a sustainable transportation system in Bekasi City.

RESEARCH METHOD

This study uses a quantitative approach with a survey method to measure the level of satisfaction of BISKITA Trans Bekasi Patriot passengers. The population in this study were all passengers who used the service, with the research sample determined using purposive sampling based on the criteria of passengers who had used the service at least three times. The number of samples taken was 100 people to ensure the research results were representative. The research was conducted from October to December 2024 in the BISKITA Trans Bekasi Patriot operational area.

The research instrument was a questionnaire based on the SERVQUAL method, covering five primary dimensions: tangibles, reliability, responsiveness, assurance, and empathy. The questionnaire was tested for validity and reliability using Statistical Package for the Social Sciences (SPSS) software before use. Data was collected by distributing questionnaires directly to respondents at selected bus stops during operating hours. The collected data were analyzed using the Customer Satisfaction Index (CSI) method to measure the level of passenger satisfaction and SERVQUAL analysis to identify the gap between passengers' expectations and perceptions of the services provided. Data analysis was carried out with the help of Microsoft Excel 2019 and SPSS version 27.

RESULT AND DISCUSSION

Validity and Reliability Test

Before conducting the Customer Satisfaction Index (CSI) and Servqual analysis, validity, and reliability tests were performed to ensure that the research instruments could be used properly. The validity test assesses whether the statement items in the questionnaire can measure the intended construct, while reliability determines the consistency of measurement.

Table 1. Expectation validity test results

Statement	r_{count}	r_{table}	Sig. (2-tailed)	Description
X1	0.39	0.195	<.001	Valid
X2	0.50	0.195	<.001	Valid
X3	0.53	0.195	<.001	Valid
X4	0.50	0.195	<.001	Valid
X5	0.51	0.195	<.001	Valid
X6	0.28	0.195	<.001	Valid
X7	0.47	0.195	<.001	Valid
X8	0.50	0.195	<.001	Valid
X9	0.59	0.195	<.001	Valid
X10	0.51	0.195	<.001	Valid
X11	0.64	0.195	<.001	Valid
X12	0.57	0.195	<.001	Valid
X13	0.52	0.195	<.001	Valid
X14	0.62	0.195	<.001	Valid
X15	0.54	0.195	<.001	Valid
X16	0.52	0.195	<.001	Valid
X17	0.45	0.195	<.001	Valid
X18	0.60	0.195	<.001	Valid
X19	0.64	0.195	<.001	Valid

X20	0.54	0.195	<.001	Valid
X21	0.62	0.195	<.001	Valid
X22	0.52	0.195	<.001	Valid
X23	0.63	0.195	<.001	Valid
X24	0.54	0.195	<.001	Valid
X25	0.44	0.195	<.001	Valid
X26	0.42	0.195	<.001	Valid
X27	0.60	0.195	<.001	Valid
X28	0.66	0.195	<.001	Valid
X29	0.50	0.195	<.001	Valid
X30	0.57	0.195	<.001	Valid
X31	0.58	0.195	<.001	Valid
X32	0.44	0.195	<.001	Valid

Source: Researcher, 2025

Based on the validity test results, all statements on variable X have a correlation value r_{count} more significant than the r_{table} value of 0.195, so they are declared valid. Thus, all statements on variable X can be used to measure the intended construct accurately.

Table 2. Satisfaction validity test results

Statement	**r_{count}**	**r_{table}**	**Sig. (2-tailed)**	**Description**
Y1	0.58	0.195	<.001	Valid
Y2	0.28	0.195	0.005	Valid
Y3	0.38	0.195	<.001	Valid
Y4	0.34	0.195	<.001	Valid
Y5	0.54	0.195	<.001	Valid
Y6	0.43	0.195	<.001	Valid
Y7	0.30	0.195	0.003	Valid
Y8	0.42	0.195	<.001	Valid
Y9	0.44	0.195	<.001	Valid
Y10	0.44	0.195	<.001	Valid
Y11	0.50	0.195	<.001	Valid
Y12	0.63	0.195	<.001	Valid
Y13	0.50	0.195	<.001	Valid
Y14	0.47	0.195	<.001	Valid
Y15	0.45	0.195	<.001	Valid
Y16	0.52	0.195	<.001	Valid
Y17	0.43	0.195	<.001	Valid
Y18	0.54	0.195	<.001	Valid
Y19	0.62	0.195	<.001	Valid
Y20	0.47	0.195	<.001	Valid
Y21	0.50	0.195	<.001	Valid
Y22	0.56	0.195	<.001	Valid
Y23	0.54	0.195	<.001	Valid
Y24	0.50	0.195	<.001	Valid
Y25	0.46	0.195	<.001	Valid
Y26	0.44	0.195	<.001	Valid
Y27	0.45	0.195	<.001	Valid
Y28	0.49	0.195	<.001	Valid
Y29	0.41	0.195	<.001	Valid

Y30	0.57	0.195	<.001	Valid
Y31	0.56	0.195	<.001	Valid
Y32	0.54	0.195	<.001	Valid

Source: Researcher, 2025

Based on the validity test results, all statements on variable Y have a correlation value r_{count} more significant than the r_{table} value of 0.195, so they are declared valid. Thus, all statements on variable Y can be used to measure the intended construct accurately.

Table 3. Reliability test results

Variable	Cronbach's Alpha (α) Hit	Cronbach's Alpha (α) Table	Total Items	Description
Expectation (X)	0.917	0.60	32	Reliable
Satisfaction (Y)	0.887	0.60	32	Reliable

Source: Researcher, 2025

The reliability test results show a Cronbach's Alpha (α) value of 0.917 for the Expectation variable (X) and 0.887 for the Satisfaction variable (Y). Because this value is more significant than 0.60, all instruments are declared reliable and can be used for research data collection.

After ensuring that all research instruments have met the validity and reliability requirements, the next step is to analyze the data to calculate the level of customer satisfaction using the Customer Satisfaction Index (CSI) and SERVQUAL methods. The CSI method measures the overall level of satisfaction, while SERVQUAL analysis aims to evaluate the gap between expectations and reality of service in each dimension of service quality. The results of the CSI and SERVQUAL calculations will be the basis for identifying aspects that require service development or improvement.

Customer Satisfaction Index (CSI) Results

The stages of calculating the customer satisfaction index using the Customer Satisfaction Index (CSI) method include several steps, namely calculating the average value of the importance score (Mean Importance Score/MIS), the average satisfaction score (Mean Satisfaction Score/MSS), the weight factor (Weight Factor/WF), the weight score (Weight Score/WS), and the percentage of the overall customer satisfaction index (Customer Satisfaction Index/CSI). In this study, the calculation was carried out with the help of Microsoft Excel 2019 software, and the results are presented in Table 4.

Table 4. Customer Satisfaction Index (CSI) Results

Attribute No.	Yi Total Value	MIS Value	Xi Total Value	MSS Value	WF Value (%)	WS Value
1	455	4.55	413	4.13	3.21	13.24
2	417	4.17	328	3.28	2.94	9.64
3	435	4.35	416	4.16	3.07	12.75
4	445	4.45	405	4.05	3.14	12.7
5	437	4.37	415	4.15	3.08	12.78
6	442	4.42	328	3.28	3.11	10.22
7	402	4.02	350	3.5	2.83	9.91
8	451	4.51	405	4.05	3.18	12.87
9	452	4.52	407	4.07	3.18	12.96
10	442	4.42	411	4.11	3.11	12.8
11	432	4.32	402	4.02	3.04	12.24

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12	445	4.45	398	3.98	3.14	12.48
13	447	4.47	402	4.02	3.15	12.66
14	441	4.41	411	4.11	3.11	12.77
15	444	4.44	401	4.01	3.13	12.55
16	448	4.48	410	4.1	3.16	12.94
17	441	4.41	397	3.97	3.11	12.34
18	449	4.49	427	4.27	3.16	13.51
19	444	4.44	409	4.09	3.13	12.8
20	449	4.49	408	4.08	3.16	12.91
21	447	4.47	419	4.19	3.15	13.2
22	445	4.45	393	3.93	3.14	12.32
23	442	4.42	411	4.11	3.11	12.8
24	448	4.48	415	4.15	3.16	13.1
25	465	4.65	436	4.36	3.28	14.29
26	452	4.52	418	4.18	3.18	13.31
27	456	4.56	410	4.1	3.21	13.17
28	439	4.39	417	4.17	3.09	12.9
29	435	4.35	394	3.94	3.07	12.08
30	443	4.43	415	4.15	3.12	12.95
31	449	4.49	411	4.11	3.16	13
32	453	4.53	419	4.19	3.19	13.37
TOTAL		141.9		129	100%	403.56

Source: Researcher, 2025

The CSI percentage value is calculated by dividing the weighted score by the maximum scale used, so the calculation is as follows:

$$CSI = \frac{403.6}{5}\ x\ 100\%$$

$$CSI = 80.71\ \%$$

The results of the CSI calculation show that the total CSI value is 80.71%, which is in the “Satisfied” category. Thus, it can be concluded that most users of the BISKITA Trans Bekasi Patriot service are satisfied with the quality of service provided.

Servqual Value Calculation Results

This study used SERVQUAL analysis to evaluate the gap between passengers' expectations and perceptions of the BISKITA Trans Bekasi Patriot service. This method measures five dimensions of service quality: Tangible, Reliability, Responsiveness, Assurance, and Empathy. The gap value is calculated based on the difference between the perception (Y) and expectation (X) scores on each dimension, with positive results indicating service advantages and negative results indicating service deficiencies.

Furthermore, the results of the SERVQUAL calculation are presented in tabular form to illustrate the performance of each service dimension and indicator. These results provide a comprehensive picture of aspects that require improvement and strengths that can be maintained.

Table 5. The results of the calculation of the Servqual value of each dimension

Dimensions	Average		gap	Rank
	Xi	Yi		
Tangible	30,33	26,55	-3,78	5

Reliability	22,22	20,23	-1,99	1
Responsiveness	31,14	28,57	-2,57	4
Empathy	31,48	29	-2,48	3
Assurance	26,75	24,66	-2,09	2

Source: Researcher, 2025

Based on Table 5's gap analysis of each dimension, to improve the quality of BISKITA Trans Bekasi Patriot services, improvements need to be focused on the Tangible dimension. This dimension has the highest gap between expectations and satisfaction of -3.78, indicating the need for more attention to improving the quality of aspects related to physical facilities. Meanwhile, the Reliability dimension has the smallest gap of -1.99 and is ranked first, indicating that this aspect performs closely to passenger expectations.

CONCLUSION

Based on the results of data analysis, this study found that passenger satisfaction is in the "Satisfied" category, with a Customer Satisfaction Index (CSI) value of 80.71%. The findings also show that the Reliability dimension performs better than other dimensions. However, some aspects of service require attention, especially bus stop facilities, including cleanliness and comfort of seats, as well as the quality of service of officers in handling passenger complaints. As a contribution to the development of public transportation services, the focus of improvement and development should be directed at improving bus stop facilities, such as cleanliness and comfort, and training officers to enhance alertness and friendliness in serving passengers. These findings provide recommendations for service managers to improve operational quality that impacts the satisfaction of public transportation users. From an economic perspective, improving the quality of public transportation services such as BISKITA Trans Bekasi Patriot can positively impact managers and the community. Higher user satisfaction has the potential to increase customer loyalty, which in turn will increase the number of passengers and operating income. In addition, quality public transportation can reduce people's dependence on private vehicles, thereby reducing individual transportation costs and increasing society's overall economic efficiency.

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