

Passenger Satisfaction Analysis on Bekasi Station Service Performance

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Abstract

Bekasi Station (BKS) is a large class C train station located on Jl. H. Juanda, Bekasi City at an altitude of +19 meters, including in Operation Area I Jakarta. This station serves thousands of commuter passengers to Jakarta and surrounding areas by KRL Commuter Line and there is a KRL depot to the west of the station. Bekasi Station is quite crowded. Therefore, it is very important to know how the current condition of Bekasi Station and the level of satisfaction of train service users to the performance of Bekasi Station services.

This study uses Importance Performance Analysis (IPA) method and field survey method to conduct direct observations at the station to evaluate the condition of Bekasi Station which will be compared with Regulation of the Minister of Transportation No. PM 48 of 2015 concerning Minimum Service Standards for Transportation of People By Train at Stations. As well as the Regulation of the Minister of Transportation No. 29 of 2011 concerning the technical requirements of railway station building. Then to know about the performance of the service and the satisfaction of the passengers, it is necessary to spread the questionnaire.

The results of the evaluation showed that the needs of the building area of basic activities and the width of the platform still meet the standards of the existing rules in the Regulation of the Minister of Transportation No. 29 of 2011. The average level of passenger satisfaction to the service and facilities of Bekasi Station is satisfied with the average performance level of the station which is good with an average score of 4.04 and an average - the average level of station performance is good with an average score of 4.05 from the highest score of 5.

Keywords :

Bekasi, Station, Train, Passenger Satisfaction, Bekasi Station Service Performance.

1. Introduction

The population of Bekasi city reaches more than 3 million, this makes the city of Bekasi as one of the areas with the most population. With a large population of course Bekasi city also has high mobility compared to other cities (Badan Statistik Indonesia, 2020).

Along with the increasing mobility of the population and transportation problems that occur in Bekasi and surrounding areas affect the number of train passengers per year. During 2020 the number of train users from January - June reached 89,703 users in jabodetabek area (Badan Statistik Indonesia, 2020).

The railway station according to PM 29 (2011) is a railway infrastructure as a place of departure and stop of trains. Passengers can wait for the train /krl that comes or stops, book tickets, and drop off / pick up passengers, so that facilities are needed that can meet the needs of users of the service.

According to Salim (2004) Railway is the provision of transportation services on the tracks to carry goods and passengers. The train provides safety, comfort, and safety services for passengers.



Figure 1. Bekasi Station



Figure 2. Train

According to Kotler (1997) Customer satisfaction is a person's feeling of pleasure or disappointment that comes from a comparison between his impression of the performance of a product and its expectations. Satisfaction has a relationship that aligns with performance and expectations. A person will be satisfied if expectations for performance, equal to or exceeding that performance actually occur, and vice versa. The concept of customer satisfaction has a sense of a customer's level of satisfaction after comparing the reality of performance or perceived results with their expectations and perception of the service.

The objectives of this study are:

1. Know the number of passengers in Bekasi Station.
2. Know the service performance of Bekasi Station.
3. Know the level of passenger satisfaction to the services and facilities at Bekasi Station.

2. Research Methodology

In this research, several stages are needed in the process such as, processing questionnaires based on minimum service standards that will be distributed to 100 respondents directly, respondents will give a likert scale assessment of the quality of service performance and service satisfaction Bekasi Station follows 16 questions in the questionnaire that researchers provide, then the collection of primary and secondary data, primary data obtained from questionnaire answers from respondents while secondary data obtained from the relevant agencies, then process the data using *the Importance Performance Analysis* method and analyze it with some data testing, namely validity test, reliability test, normality test.

2.1. Data Processing of Questionnaire Result

The data that has been collected is then processed using the Important Performance Analysis method by comparing the quality of service performance and satisfaction with the services obtained in using bekasai station services, the result is a priority level of statement attributes in the questionnaire presented in the cartesian diagram.

2.2. Data Analysis

To know the instrument that is prepared correctly both in measuring the level of service and producing valid data conducted several tests as follows:

2.2.1. Validity Test

(Chairi et al., 2017) Validity is a measure that indicates that the variable measured is really a variable to be studied. To ascertain whether the items contained in the statement are valid or not, this study uses a validity test. If the result is valid then data processing can be continued, but if the result is invalid then the validity test process is repeated by entering only valid statements.

2.2.2. Reliability Test

According to Anastasi & Urbina (1997) Reliability is something that refers to the consistency of scores achieved by the same person when they are retested with the same test on different occasions, or with a different set of equivalent items, or under different testing conditions.

According to Sujarweni (2014) Kuisisioner is declared reliable if cronbach value alpha > 0.6 .

2.2.3. Normality Test

Normality Test is a test obtained from the data distribution to find out if the data has normal or near normal distribution. Testing this data using SPSS program by conducting kolmogov-smirnov normality test and declared normal distribution if signification value > 0.05 then abnormal distribution if < 0.05 .

3. Result And Analysis

3.1. Number of Passenger at Bekasi Station

The following are the number of passengers of Bekasi Jakarta Train/KRL Station from May 2020 – October 2020, can be seen in figure 3:

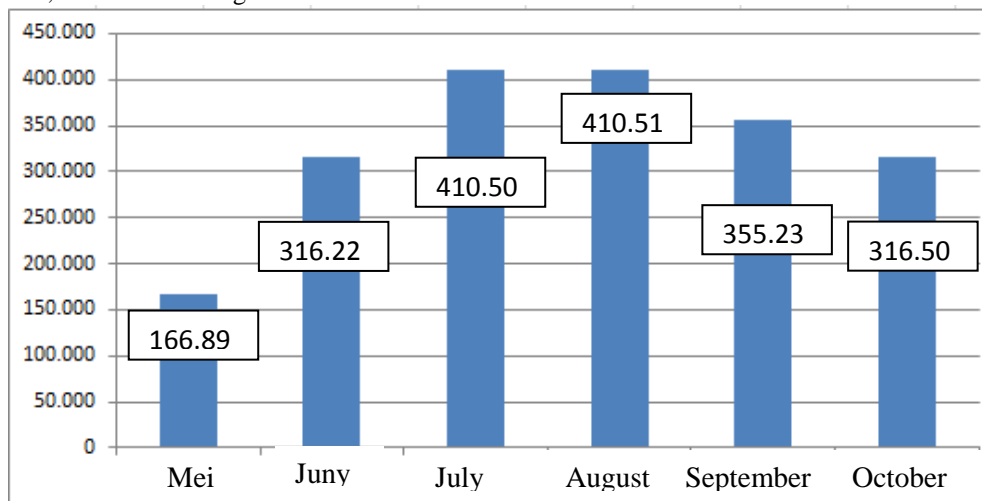


Figure 3. Bekasi Station Passenger Data Chart

3.2. Respondent Characteristic Analysis

In this study, the respondents taken were passengers of Bekasi Station with a total of 100 respondents, can be seen in tables 1 and 2:

Table 1. Number of Passengers by Gender

Category	Frequency	Percentage
Male	61	61%
Women	39	39%
Total	100	100%

Table 2. Respondent Age Data

Category	Frequency	Percentage
< 17 Years	5	5%
18 - 25 Years Old	52	52%
26 - 35 Years Old	25	25%
36 - 45 Years Old	15	15%
45 Years	3	3%
Total	100	100%

3.3. Validity Test

Validity Test In this case the magnitude of df can be calculated i.e. 100-2 or df = 98 with alpha 0.05 obtained r table of 0.196 if r count is greater than r table then innny will bevalid. Can be seen in tables 3 and 4:

Table 3. Performance Factor Validity Test Results

Variable	Calculated R Value	Table R Value	Signification Value	Decision
X1	0,424	0,196	0,05	Valid
X2	0,477	0,196	0,05	Valid
X3	0,353	0,196	0,05	Valid
X4	0,416	0,196	0,05	Valid
X5	0,342	0,196	0,05	Valid
X6	0,345	0,196	0,05	Valid
X7	0,376	0,196	0,05	Valid
X8	0,384	0,196	0,05	Valid
X9	0,354	0,196	0,05	Valid
X10	0,369	0,196	0,05	Valid
X11	0,375	0,196	0,05	Valid
X12	0,379	0,196	0,05	Valid
X13	0,355	0,196	0,05	Valid
X14	0,367	0,196	0,05	Valid
X15	0,358	0,196	0,05	Valid
X16	0,416	0,196	0,05	Valid

Table 4. Satisfaction Factor Validity Test Results

Variable	Calculated R Value	Table R Value	Signification Value	Decision
Y1	0,362	0,196	0,05	Valid
Y2	0,471	0,196	0,05	Valid
Y3	0,416	0,196	0,05	Valid
Y4	0,450	0,196	0,05	Valid
Y5	0,364	0,196	0,05	Valid
Y6	0,343	0,196	0,05	Valid
Y7	0,395	0,196	0,05	Valid
Y8	0,403	0,196	0,05	Valid
Y9	0,339	0,196	0,05	Valid
Y10	0,347	0,196	0,05	Valid
Y11	0,359	0,196	0,05	Valid
Y12	0,373	0,196	0,05	Valid
Y13	0,349	0,196	0,05	Valid

Y14	0,386	0,196	0,05	Valid
Y15	0,386	0,196	0,05	Valid
Y16	0,445	0,196	0,05	Valid

Observation Results From the table above can be known that each question item has a calculated $r >$ from the table r (0.196) and is positive. Thus the question item is declared valid.

3.4. Reliability Test

Reliability testing is done by testing the instrument only once. In this study, the authors conducted reliability tests using SPSS software devices. Can be seen in table 5 :

Table 5. Reliability Test Results

Variable	Coefficient reliability	Cronbach Alpha	Minimum Alpha	Description
X (Performance)	16 questions	0,602	0.6	Reliable
Y (Satisfaction)	16 questions	0,616	0.6	Reliable

Based on the data above cronbach alpha $>$ minimum alpha then the data is declared reliable

3.5. Normality Test

Normality Test is a test obtained from the data distribution to find out if the data has normal or near normal distribution. Testing this data using SPSS program by conducting kolmogov-smirnov normality test and declared normal distribution if signification value $>$ 0.05 then abnormal distribution if $<$ 0.05. Can be seen in table 6 :

Table 6. Normality Test Results

		Unstandardized Residual
N		100
Normal Parameters ^{a,b}	Mean	0E-7
	Std. Deviation	4,63090584
Most Extreme Differences	Absolute	,071
	Positive	,040
	Negative	-,071
Kolmogorov-Smirnov Z		,711
Asymp. Sig. (2-tailed)		,693

- Test distribution is Normal
- Calculated from data

From normality testing it can be known that the value of significance obtained is $0.693 >$ 0.05, so it is concluded that all data is declared normally distributed.

3.6. Assessment of Service Performance And Service Satisfaction

Here is an assessment of the level of service performance and satisfaction of passenger service.

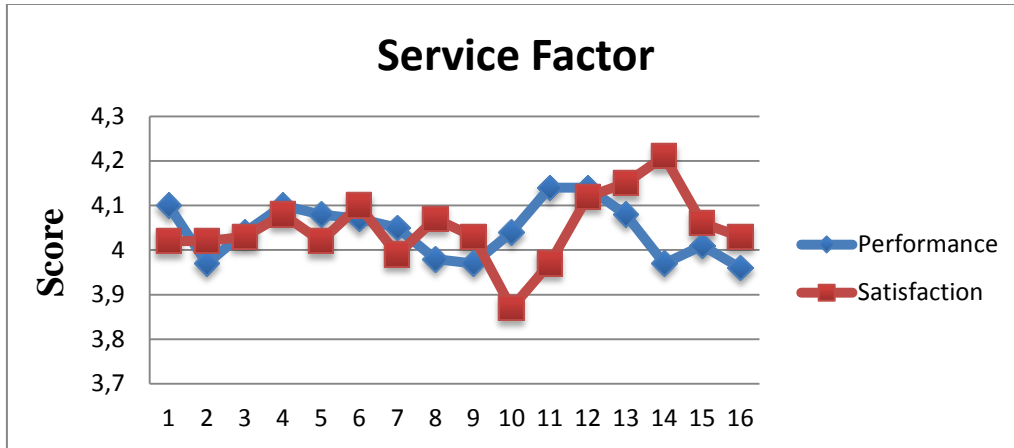


Figure 4. Graph of Service Performance Level Assessment and Passenger Service Satisfaction

From the calculation of the average of each dimension of service as a whole obtained as follows;

1. The average dimension of service quality for the performance of Bekasi Station reaches a value of **.04** then on average it can be said that the performance for each dimension service has reached the category of **Excellent**.
2. The average level of passenger satisfaction in each dimension reaches a value of **4.05** then on average it can be said that the level of passenger satisfaction for the service of each dimension has reached the category of **Very Satisfied**.

3.7. Priority Level Calculation

Here is a cartesian diagram that has been processed using the SPSS program. Can be seen in figure 5 :

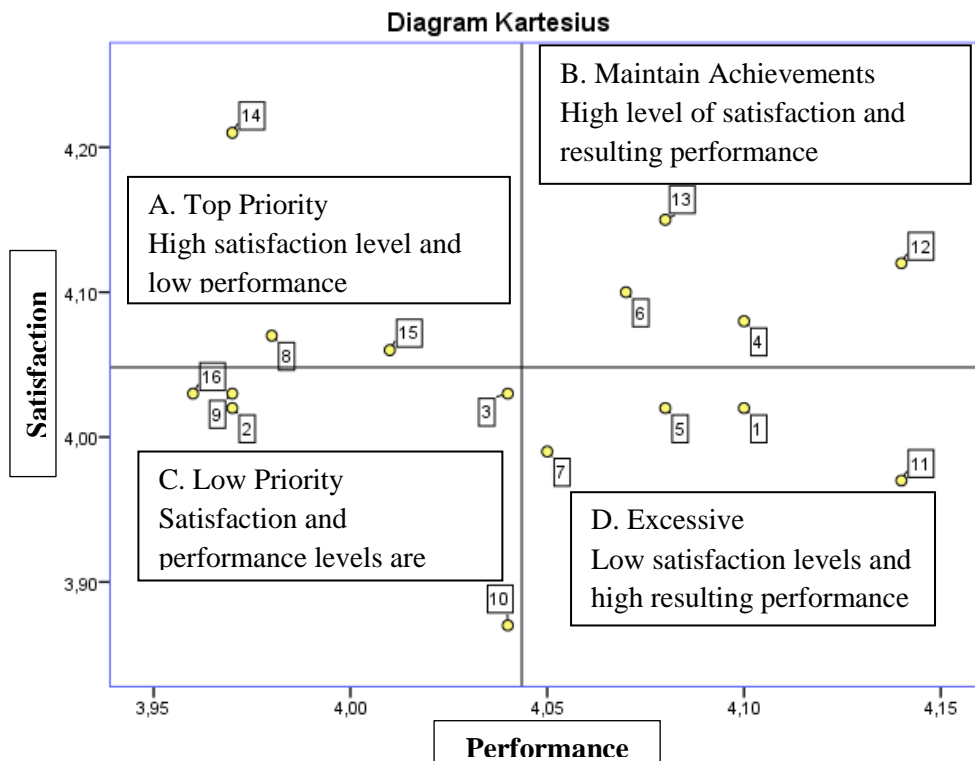


Figure 5. Cartesian Diagram

Based on the results of the data processing above, the item statement items described with cartesian diagrams, it can be described as follows:

1. Quadrant A shows **the First Priority** that the service performance is below average but the passenger satisfaction value is above average. Service factors in this quadrant should be used as the main priorities in handling in order to create quality services.
 - a) Question to - 8, Speed of time regarding ticket sales rates (Max 3 minutes in 1 queue).
 - b) Question to - 14, Ease of boarding / disembarking the train (There are stair tools to enter the carriage).
 - c) Question to - 15, Available information such as station plan, in the form of audio, advanced transportation information.
2. Quadrant B shows **Maintain Achievement** that the value of service performance and passenger satisfaction value is above average, where for the service factors contained in this quadrant in order to maintain its achievements, because performance and satisfaction have been in line with expectations.
 - a) Question to - 4, Available Information if there is a security intrusion (Theft or lost goods).
 - b) Question 6, The Officer in charge of passenger safety.
 - c) Question to - 12, The waiting area is clean and comfortable.
 - d) Question to - 13, Parking area is adequate and functioning properly.
3. Quadrant C shows **Low Priority** that the value of service and service value and the value of expectation / satisfaction are equally low, where between the performance of the service and the level of passenger satisfaction at the same level so that it is maintained enough.
 - a) Question 2, There are adequate lighting lights.
 - b) Question 3, There are instructions for evacuation routes (There are evacuation route signs).
 - c) Question to - 9, Fast response service by the ticket officer (Provide solutions in case of problems with ticket purchase).
 - d) Question 10, There is a clean mushola and worth using.
 - e) Question 16, There are facilities for people with disabilities.
4. Quadrant D shows **excessive** that the expectation value is below average and the service value is above average, showing the level of service performance exceeds the level of passenger satisfaction.
 - a) Question to - 1, Available information and health facilities (There are first aid kits, wheelchairs and stretchers).
 - b) Question 5, Surveillance Camera Works fine.
 - c) Question to - 7, Departure schedule information (There is an information board).
 - d) Question to - 11, Toilet is clean and does not smell.

4. Conclusion

Based on the results of research and analysis conducted at Bekasi Station, it can be concluded as follows:

1. It can be stated that the satisfaction of quality to the performance of facilities in Bekasi Station has been Very Good
With an average rating for service performance of 4.04 out of 5.00 means it can be concluded that the quality of service performance provided to passengers is Very Good.
The average rating for service satisfaction of 4.05 out of 5.00, means that the satisfaction of the service performance provided to passengers is Very Satisfied.
2. After processing the data and then made a cartesian diagram (Important Performance Analysis) based on the calculation table flat - average then the item items will be grouped into 4 priority quadrants so that it can be concluded about the service that needs to be improved in order for the service obtained by passengers in accordance with their expectations.

Here are the services that need to be improved in quadrants C namely:

- a) Question 2, There are adequate lighting lights.
- b) Question 3, There are instructions for evacuation routes (There are evacuation route signs).
- c) Question to - 9, Fast response service by the ticket officer (Provide solutions in case of problems with ticket purchase).
- d) Question 10, There is a clean mushola and worth using.
- e) Question 16, There are facilities for people with disabilities

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Biographies

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