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The Effect of Service Quality and Facilities on Commuter Line Train User Satisfaction in Indonesia

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Abstract

Purpose: This study aimed to examine the influence of service quality and facilities on user satisfaction with Jabodetabek commuter line trains.
Research Methodology: This study employed a quantitative descriptive-verification approach using questionnaires, observations, and literature reviews. Data were analyzed using validity, reliability, path, t-test, and F-test analyses with SPSS 23.0. Purposive sampling was applied, resulting in 348 respondents based on the Isaac and Michael formula at a 5% margin of error and 95% confidence level.
Results: According to the analysis, the quality of service effect amounted to 38.00% on user satisfaction Commuter Line, influencing facilities for 40.30% of the Commuter Line user satisfaction, and jointly quality of service and facility has an influence of 78.30% on Commuter Line Train user satisfaction.
Conclusions: Based on the results of this study, the steps that need to be taken by the management of PT. KAI is making efforts to further improve the quality of Commuter Line Train user satisfaction by improving the quality of service (Service Quality) and facilities (facilities/infrastructure).
Limitations: This study is limited to the Jabodetabek Commuter Line and considers only service quality and facilities, which explain 78.3% of customer satisfaction; other factors influencing satisfaction were not examined.
Contributions: The study provides empirical evidence of the significant effect of service quality and facilities on commuter satisfaction, offering practical guidance for PT KAI to improve service and infrastructure to enhance user experience.

Keywords: *Commuter Line, Customer Satisfaction, Facilities, Service Quality*

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1. Introduction

The land transportation services industry is a large and growing sector. This growth was caused by the increase in land transportation service users, both for the purpose of traveling people and transporting goods. The Commuter Line Electric Rail Train (KRL) is a public transportation mode with a large carrying capacity for the people of Jakarta and its surroundings. Since September 19, 2017, PT KAI Commuter Greater Jakarta has changed its name to PT Commuter Train Indonesia, which is one of the subsidiaries of PT Kereta Api Indonesia (KAI) that manages the Jabodetabek Commuter Train and its surroundings. The KAI was formed in accordance with Presidential Instruction No. 5 of 2008 and the

Letter from the Minister of State for SOEs No. S-653 / MBU / 2008 dated August 12, 2008. The main task of this new company is to provide commuter rail transportation services using the Electric Rail Train in the Jakarta, Bogor, Depok, Tangerang, and Bekasi (Jabodetabek) and surrounding areas as well as business in the non-passenger transportation business sector in Japan. KAI started the modernization of KRL transportation in 2011 by simplifying the existing routes into five main routes, eliminating express KRL, implementing women-only trains, and changing the name of the AC economy Commuter Line to Commuter Line trains. This project is followed by the renovation, rearrangement, and sterilization of facilities and infrastructure, including train lines and train stations, carried out together with PT KAI (and the Government). As of December 2019, KAI already had 1,100 Commuter Line units, and the number will continue to grow. Throughout 2019, KCI added a fleet of 168 units. This is to meet the increasing demand for passengers. In 2019, the number of Commuter Line users reached 336,045 passengers per day on average, serving 28,004 passengers from all over Jabodetabek. As a facility operator, the Commuter Line train operated by KAI currently serves 80 stations throughout Jabodetabek, Banten, and Cikarang with a route range of 418.5 km (Agarwal & Gowda, 2020).

In line with the increasing number of Electric Rail Train (KRL) users, the level of consumer satisfaction has decreased. The phenomenon of decreasing customer satisfaction should be the primary concern of service companies because these two factors determine the company's performance. Consumer perceptions of service quality and relationship quality simultaneously influence customer satisfaction and loyalty. This can be seen from the results of several studies that service quality and relationship quality are significant factors in increasing customer satisfaction (Kassem et al., 2021).

According to a survey by republika.co.id in 2014, there were five passenger complaints that were felt to be very important for improvement by the management of PT KAI Jabodetabek, including the AC facility, where the air conditioner often does not function when the carriage is full. The second is the carriage lights, which are related to the lights in a number of carriages that are often turned off. The third is a complaint against KAI's facilities related to the frequent shutdown of station notification sound systems (Permana et al., 2021). The last one is the KRL fleet, where passengers jostle, and the waiting time for passengers increases. The results of this satisfaction survey attracted the attention of researchers to further develop research on KRL passenger satisfaction with the facilities provided by PT KAI Commuter Line Jabodetabek. As a first step, the researchers conducted a pre-survey of 50 random passengers using an open-ended questionnaire. The open question posed by the researcher was, "In your opinion, what facilities need to be repaired for the convenience of your trip using KRL?" The highest answer was AC facilities with a score of 20 respondents, followed by carriage lights with 15 respondents, sound systems with 5 respondents, and finally the KRL fleet facilities, which are not proportional to the current number of KRL passengers, with 10 respondents. The results of this pre-survey research confirm the results of a survey conducted by Republika.co.id regarding the satisfaction of Jabodetabek Commuter Line users, resulting in a gap between increasing users and the number of facilities provided by PT KAI in the operation of the Jabodetabek KRL. The following is data from the pre-survey results, with an increase in the number of passengers from 2015 to 2019.

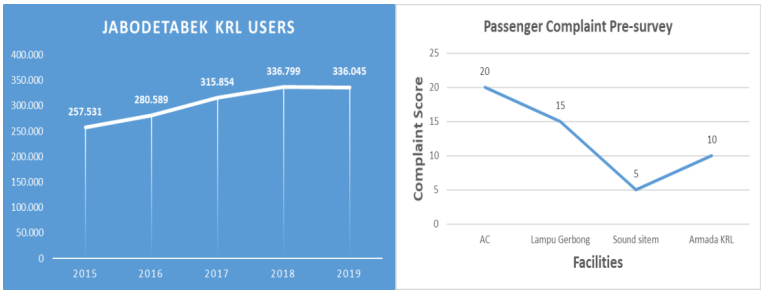

Figure 1. Research Gap Data
Source: KAI & Pre-Survey (2021)

Based on Figure 1, the number of KRL (commuter line) users in the Greater Jakarta area increased steadily from 257,531 in 2015 to 336,799 in 2018, before slightly decreasing to 336,045 in 2019. This indicates a general upward trend in commuter train usage over the five-year period, reflecting growing reliance on rail transportation for daily travel. Passenger complaints vary across different facilities. The highest complaint score was reported for air conditioning (AC) with a score of 20, followed by door lamps (lampu gerbong) at 15. Sound systems received the lowest complaint score of 5, while the train fleet (armada KRL) scored 10. This shows that climate control and door lighting are the most prominent concerns among passengers (Rizkita et al., 2023).

The increasing trend of Jabodetabek Commuter Line KAI users from 2015 to 2019 has not been accompanied by the provision of adequate KRL facilities, which has raised dissatisfaction with KRL users perpendicularly. This can be seen from the data on the increasing trend of users with data from the pre-survey results of Commuter Line KRL users. Understanding customer expectations regarding organizational social responsibility is fundamental to creating and implementing successful service strategies and programs to achieve customer satisfaction (Santos et al., 2020). Many factors can influence satisfaction, specifically, several studies assessing the relationship between service quality and satisfaction yield a consistent one. Service aspects, as measured by availability, accessibility, diversity, relevance, and effectiveness, produce mixed research results, where the accessibility factor is a very strong factor in shaping customer satisfaction (Kassem et al., 2021). The level of customer satisfaction can also be built by the dimensions of service quality factors such as tangibility, reliability, responsiveness, assurance, and empathy, which are directly related to the level of customer satisfaction (Kassem et al., 2021). To overcome customer inequality and obtain customer preferences and desires, the index of decreasing dissatisfaction and the index of increasing satisfaction can be measured separately. This allows us to determine how different elements of service quality affect customer satisfaction (Shokouhyar et al., 2020). The phenomenon of decreasing customer satisfaction and loyalty should be the main concern of service companies because these two factors determine a company's performance.

An increase in good service quality can lead to user loyalty and the possibility of increasing new users. A loyal commuter line user means that the consumer feels satisfied and has used the service more than once. This is very beneficial for the company, because by satisfying consumer needs, users will not glance at other modes of transportation, and in the loyalty process, it is likely that free promotions in the form of word of mouth carried out by commuter line users are loyal to users of other modes of transportation (Agarwal & Gowda, 2020). Public attitudes towards public transportation services are crucial for increasing demand for these services. Several important factors in predicting passenger satisfaction are security, safety, comfort, quality of infrastructure, and facilities (Li et al., 2021). The number of visitors or the number of customers does not necessarily indicate customer satisfaction with the company where in addition to adequate service, the quality of the facilities provided by the company can also affect customer satisfaction (Wang et al., 2018).

In classifying public responses to types of public transportation, it can be seen that the Commuter Line is the only type of public transportation that has more negative sentiments than positive ones. On average, the Commuter Line is a type of public transportation with the lowest average sentiment value of -0.28, followed by TJ at 0.1, MRT at 0.11, and LRT at 0.14, which more often receive negative sentiments from society than others. The activity of classifying this response can then be carried out periodically in a shorter time so that it can be used to evaluate the company and improve its services (Rachman et al., 2021). Commuter Line users are increasingly critical in assessing the quality of service owing to the increasing level of awareness of the right to get the best possible facilities and services, which is very high in the scope of service using trains. Therefore, to determine whether customer satisfaction has been fulfilled, it is necessary to conduct a direct survey of the Commuter Line service users. To meet the demands of customers so that they feel safe and comfortable and their needs are fulfilled while waiting, the station also has supporting facilities that consumers can enjoy directly so that they do not feel bored while waiting (Mansur et al., 2021). Adequate and sufficient facilities provided by KAI are expected to satisfy customers. Therefore, the objectives of this study are twofold.

1. to determine the effect of service quality on overall satisfaction in using the JABODETABEK commuter line train, and
2. to determine the effect of perceived facilities on overall user satisfaction.

2. Literature Review & Hypothesis Development

2.1 Customer Satisfaction

Satisfaction is a method for evaluating quality. A very high level of customer satisfaction is believed to be the best indicator of a company's future profits (Nabilla & Soehaditama, 2023; Supardi, 2023). Satisfaction can be broadly characterized as an evaluation of the quality of a post-purchase product given pre-purchase expectations. Satisfaction is a customer's attitude towards meeting their needs. Satisfaction can also be defined as the feeling of pleasure or disappointment a person experiences after comparing the perceived performance or results of a product with their expectations (Muliyati et al., 2023). Customer satisfaction is the level at which the needs, wants, and expectations of customers are met, resulting in repeated purchases or continued loyalty. Thus, customer satisfaction or dissatisfaction is an after-purchase assessment in which the performance of the purchased product meets the customer's expectations (Rita et al., 2019; Tahir, 2023). Satisfaction is a feeling of pleasure or disappointment for someone who appears after comparing the performance (result) of the product thought to the expected performance (or outcome). If the performance is below expectations, the customer is dissatisfied. If the performance meets expectations, customers are satisfied (Ahmadun et al., 2023). If the performance exceeds expectations, the customer is very satisfied. Consumer satisfaction is a situation shown by consumers when they realize that their needs and wants are as expected and are met properly (Permana et al., 2021).

2.2 Service Quality

Service is a strategy or key in various businesses or activities of a service nature to achieve market competition, quality improvement, and other forms of services (Hudaya, 2022; Nugraha & Purnomo, 2022). This is a very urgent matter using available technology so that it becomes a continuous and integrated service. When defining the concept of service quality, one should always start with the customer, as quality is the most important factor for customers and the basis of their opinion, which results in the fact that service quality is achieved if customer expectations are met. One Service Quality approach that is widely used as a reference in research is the SERVQUAL (Service Quality Model). According to Parasuraman (2010), SERVQUAL (Service Quality) is based on the theory of

disconfirmation of expectations and depends on the gap between customer expectations about services provided and evaluation of perceptions of services (Wijayanto & Purnomo, 2023). Goetsch and Davis define Service Quality as a dynamic condition related to products, services, people, processes, and the environment that meets or exceeds expectations. Service quality has a long-term effect on shaping customer satisfaction and will make customers loyalty (Chang & Yeh, 2017). Service quality can be measured by dimensions such as tangibility, reliability, responsiveness, assurance, and empathy, in which high quality of service in that dimension will increase customer satisfaction. Service quality is the whole process of meeting customers needs so that customers feel valued by service staff, accurate billing, getting customer feedback from experience, and maintaining service speed during busy times (Sinta & Purnomo, 2023). Important factors in service quality, such as environment and facilities, safety and security, mode of transportation and travel information, accessibility and directions, comfort, convenience and environmental quality, and staff and ticket management, are factors that become benchmarks for improving service quality (Chauhan et al., 2021).

2.3 Amenities

An equally important factor to consider after service in a service business is the facilities. In a service business, customers' assessment of a company is based on what they receive after using the service. Facilities are tools used to simplify and facilitate businesses or jobs. Facilities can also be interpreted as anything that can smooth or facilitate business implementation. Another opinion states that a facility is something that makes a business easy and smooth, usually in the form of things or money. Measuring passenger satisfaction with public transport services is important in both research and transportation practice (Rachman et al., 2021). To improve infrastructure, facilities, services, and public transport needs, transportation agencies must understand how many passenger expectations have been met. Customer surveys are essential because they provide transit agents with valuable information, such as which aspects are very important to passengers and what makes them particularly satisfied and dissatisfied (Chang & Yeh, 2017; Li et al., 2021). According to Mulyadi et al. (2022) and Santos et al. (2020), facilities are everything that is physical equipment and is provided by the service seller to support consumer convenience. It can be said that from another point of view a facility is a means to facilitate the implementation of its function. This means that the facilities are convenient. Facilities are anything in the form of objects or money that are used to facilitate and expedite an undertaking.

2.4 Customer Service and Satisfaction

Service quality is a significant factor that influences customer satisfaction (Li et al., 2021). In the concept of customer satisfaction, a good work environment and service-related training can create a positive service climate for employees, which, in turn, can increase customer satisfaction (Son et al., 2021). The strategy of increasing satisfaction does not depend solely on the criteria with the lowest level of satisfaction and weighted estimates, the nature of each criterion, the nature of customer demand, or the technical margin for customer service improvement. Service excellence is a strategic priority, and service significantly influences superior value creation, customer satisfaction, competitive advantage, growth, and profitability (Saw et al., 2020). The relationship between service personal values (SPV) and emotional satisfaction (E-SAC) is due to the customer service experience (Mustaffa et al., 2016). As consumers become more informed and demanding regarding their purchasing services, failure to satisfy all consumers is inevitable. Therefore, it is important to reduce consumer dissatisfaction caused by service failure factors (Jung & Seock, 2017; Widyastuti, 2023). Service quality is one of the best measurement models for customer expectations and perceptions. Company performance results in customer satisfaction with products or services (Saribanon et al., 2023; Shokouhyar et al., 2020). The determining factor for overall customer satisfaction and encouraging increased collaboration and coordination between various customers is on-demand services (Hernawan et al., 2023; Xu, 2021).

2.5 Facilities and Customer Satisfaction

Commercial or public facilities, such as those scattered at subway stations or business centers, can help identify problems in commercial facility services to improve the quality of life for urban residents and increase the number of network users and user satisfaction (Wang et al., 2018). Service quality performance (SQPM) is built to limit the facilities that need to be improved and those that may be maintained, which will increase the User Satisfaction Index (USI), which is based on the Customer Satisfaction Index (Pahala et al., 2021; Valentin et al., 2023). To increase customer satisfaction, factors such as communication skills, staff professionalism, service efficiency, product quality, scheduling, quantity of users (visitors), and service facilities must be considered in future improvements. There are six attributes of servicescape, such as cleanliness, entertainment, and functionality, which have a positive effect on the perceived servicescape. In turn, servicescape has a positive effect on emotional responses and customer satisfaction (Chauhan et al., 2021; Rizkita et al., 2023). Quantitative changes in the use of server facilities are correlated with customer satisfaction, where the size and variety of quality facilities are increased to include more customers, resulting in increased customer satisfaction; however, the firm's additional revenue will eventually decrease. Existing bus stops should be improved by adding facilities such as shelters, benches, sidewalks, etc. It is relatively cheap and popular with local officials and transport drivers, which increases the number of passengers using the facility, thereby increasing the level of satisfaction (Kim et al., 2020). Customers' willingness to pay is influenced by the provision of luxury branded room facilities. When luxury facilities such as Wi-Fi and telephones are placed in the room, customer estimates of room rates and their willingness to pay both increase; this facility can be used to measure customer satisfaction with the products we put out. Based on the explanation above about the flow of thought between research variables by referring to the results of previous research and expert opinion, it can be described through a research model framework as shown in the following figure:

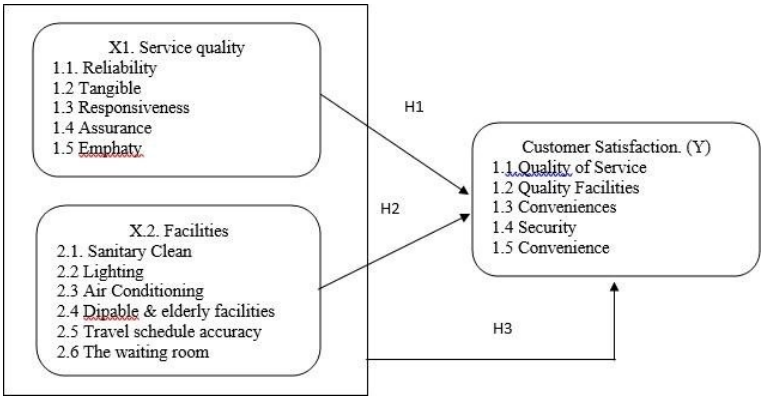

Figure 2. Conceptual Framework
Source: Data processed by researchers (2021)

Based on Figure 2, the research framework illustrates that service quality (X1) and facilities (X2) are hypothesized to influence customer satisfaction (Y). Hypothesis H1 examines the effect of service quality on satisfaction, H2 assesses the impact of facilities, and H3 considers the potential direct influence of customer satisfaction feedback on service and facility management. Key indicators for service quality include reliability, tangibles, responsiveness, assurance, and empathy, while facility indicators include cleanliness, lighting, air conditioning, accessible facilities for disabled and elderly, travel schedule accuracy, and waiting room conditions.

2.6 Hypothesis Development

Based on the research objectives, the hypothesis of this study is as follows:

- H_1: Service has a significant effect on customer satisfaction with Commuter Line trains.
- H_2: Facilities have a significant effect on customer satisfaction with Commuter Line trains.
- H_3: Services and facilities have a significant effect on customer satisfaction with Commuter Line trains.

3. Methodology

The research was conducted by observing train passengers or commuter lines for the Jakarta–Bogor, Jakarta–Tangerang, and Jakarta–Bekasi routes. The number of samples from a total population of 336,045 passengers with a 5% MOE at a 95% confidence level based on the Isaac and Michael formula was $S = 348$ samples. Validity and reliability tests were performed using SPSS 23.0. In conducting the validity test, the researcher is based on the theory that a question item is valid if it meets the following requirements:

- If the value of r count is positive and r count $>$ r table, then the questionnaire item is declared valid.
- If the value of r count is negative or r count $<$ r table, then the questionnaire item is declared invalid.

Reliability is the level of reliability of the questionnaire. A reliable instrument is an instrument that when used several times to measure the same object will produce the same data. A construct or variable is said to be reliable if it gives a Cronbach alpha (α) value > 0.60 and it is said to be unreliable if it gives a Cronbach alpha (α) value < 0.60 (**Ahmad2024**; Haji-Othman & Yusuff, 2022).

In addition to testing the validity and reliability of the research instrument, the researchers conducted several classical assumption tests, including normality, multicollinearity, and heteroscedasticity tests, to determine whether there was a violation of classical assumptions as the basis for testing multiple linear regression before testing the hypothesis.

4. Results and Discussion

4.1 Test Results of Validity and Reliability of Service Variables (X1), Facilities (X2) and Customer Satisfaction Variables (Y)

The service variable research questionnaire (X1) consisted of seven questions: X1.1, X1.2, X1.3, X1.4, X1.5, X1.6, and X1.7. The results of the calculation of the correlation score, then for questions X1.6 and X1.7 do not meet the validity requirements because r count $>$ r table. The US for variables such as US X1.1 has a value of $0.548 > 0.315$, and X1.2 has a score of $0.586 > 0.315$. Thus, the items met the validity requirements and were included in the next test.

The Facility variable (X2) is measured by six measuring instruments, such as X2.1, X2.2, X2.3, X2.4, X2.5, and X2.6. These items indicate that the calculation results meet the validity requirements, where item X2.1 is $0.613 > 0.315$, item X2.2 is $0.687 > 0.315$, items X2.3 is $0.602 > 0.315$, items X2.4 is $0.627 > 0.315$, items X2.5 which is $0.728 > 0.315$, items X2.6 is $0.762 > 0.315$. Because all items met the validity requirements, it can be concluded that the six measuring instruments can be included in further testing.

The results of the validity test of the Customer Satisfaction variable (Y), which consists of five question items, Y1.1, Y1.2, Y1.3, Y1.4, and Y1.5, are declared to meet the validity requirements because the value of r-count $>$ r-table. This can be seen from the value of r-count Y1.1 which is $0.630 > 0.315$, item Y1.2 is $0.583 > 0.315$, item Y1.3 is $0.609 > 0.315$, item Y1.4 is $0.735 > 0.315$, and item Y1.5 is 0.752

$>$ 0.315. Thus, all measuring instruments met the validity requirements; therefore, a reliability test was conducted.

Based on the results of reliability testing, the Cronbach's alpha was 0.735 (Y), 0.755 (X1), and 0.839 (X2), which indicates that the alpha value is greater than the minimum value of Cronbach's alpha 0.6. Therefore, the research instrument's value to measure the value of service variables (X1), facilities (X2), and customer satisfaction (Y) can be said to be reliable.

4.2 Classical Assumption Test Results

4.2.1 Normality

The normality test aims to determine whether the dependent and independent variables have a normal distribution. A good regression model is data that is normally or approximately normally distributed. The data normality test was performed using the one-sample Kolmogorov–Smirnov test. If the probability of asymp.sig $\alpha > 0.05$, the research data were normally distributed.

Table 1. The Results of the One-Sample Kolmogorov-Smirnov Test Normality

Parameter	**Unstandardized Residual**
N	100
Mean	0E-7
Std. Deviation	0.65140925
Most Extreme Differences (Absolute)	0.139
Most Extreme Differences (Positive)	-0.139
Most Extreme Differences (Negative)	1.591
Kolmogorov-Smirnov Z	0.620
Asymp. Sig. (2-tailed)	0.620

a. Test distribution is Normal.
b. Calculated from data.
Source: Data processed by researchers (2021)

Based on Table 1, it can be seen that the asymp.sig (2-tailed) value is 0.620 > 0.05. Therefore, these results indicate that the data used in this study were normally distributed because the significance value of the normality test for each variable was greater than α (α = 0.05), namely 0.620> 0.05.

4.2.2 Multicollinearity

Multicollinearity symptoms are characterized by a strong relationship between the independent (free) variables in a regression equation. If there are multicollinearity symptoms in a regression equation, it will cause estimation uncertainty, so that the conclusions drawn are not correct. A regression model is declared free of multicollinearity if the value of T > 0, 10 and VIF < 10. The results of the multicollinearity assumption test for this research variable can be seen based on the VIF value as follows:

Table 2. Coefficients[a] Multicollinearity Test Results

Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**Collinearity Statistics**	
	B	**Std. Error**	**Beta**			**Tolerance**	**VIF**
(Constant)	2.114	0.810		2.978	0.004		
SERVICE	0.601	0.145	0.162	1.225	0.225	0.632	1.620
AMENITIES	0.645	0.173	0.160	1.208	0.231	0.632	1.620

a. Dependent Variable: CUSTOMER SATISFACTION
Source: Data processed by researchers (2021).

Based on Table 2, the tolerance value is 0.632 > 0, 10, and the VIF value is 1,620 < 10. Therefore, it can

be concluded that there is no multicollinearity.

4.2.3 Heteroscedasticity

This test determines whether the operating variables have the same (homogeneous) variance. The Glejser test was used to detect the presence of heteroscedasticity symptoms. This method is performed by regressing the independent variables to the residual absolute value. The regression model does not contain heteroscedasticity if the significant value of the independent variable on the absolute value of the statistical residual is above $\alpha > 0.05$.

Table 3. Heteroscedasticity Test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.985	0.436		2.173	0.076
SERVICE	-0.114	0.102	-0.196	-1.480	0.382
AMENITIES	0.057	0.138	0.036	0.423	0.858

Dependent Variable: RES2
Source: Data processed by researchers (2021).

Based on Table 3, it can be seen that the significance value of the two independent variables of service is 0.382 and facilities is 0.858, meaning > 0.05. Thus, it can be concluded that there are no heteroscedasticity symptoms in this study, and a good regression model is a regression model that does not exhibit heteroscedasticity.

4.2.4 Autocorrelation

The autocorrelation test aims to determine whether there is a correlation between the confounding error in period t and the confounding error in period t-1 (previous) in the linear regression model. Autocorrelation arises because consecutive observations throughout the year are related to each other. The Durbin Watson test was used to determine the presence of autocorrelation. Decision making with the Durbin Watson test is carried out by looking at the DW value between -2 to 2, meaning that there is no autocorrelation or free autocorrelation. In this study, to test autocorrelation, we considered the following table:

Table 4. Auto Correlation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.382[a]	0.173	0.098	0.9068	1.895

a. Predictors: (Constant), AMENITIES, SERVICE
b. Dependent Variable: SATISFACTION_SERVICE
Source: Data processed by researchers (2021).

Based on Table 4, the DW value generated by the regression model was 1.895. Because the DW value (1.895) is in the area between DW between -2 to 2, the Durbin Watson test decision making is done by looking at the DW value between -2 to 2, which means there is no autocorrelation or autocorrelation free.

4.2.5 Multiple Linear Regression Test Results

In this study, the data obtained were processed using multiple linear regression models. The regression method can be used to show how the independent variable affects the dependent variables. The following table shows the results of the regression analysis calculations.

Table 5. Multiple Linear Regression Test Results Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.980	0.689		5.064	0.000
Service	0.751	0.355	0.475	2.488	0.051
Amenities	0.288	0.348	0.188	3.563	0.041

a. Dependent Variable: CUSTOMER_SATISFACTION
Source: Data processed by researchers (2021).

The equation of the resulting Multiple linear regression is:

$Y = b_0 + b_1X_1 + b_2X_2 + e$

$Y = 1.980 + 0.751 + 0.288$

Based on Table 5, it can be seen that:

1. A constant of 1.980 means that if the value of service (X1) and facilities (X2) is 0.751 and 0.288, then customer satisfaction is worth 1.980.
2. The service variable regression coefficient (X1) is 0.751, meaning that if the other independent variables remain constant and the service increases by one unit, customer satisfaction (Y) will increase by 0.751. The coefficient is positive, indicating a unidirectional relationship between services and facilities. The better the service, the higher the customer satisfaction.
3. The facility variable regression coefficient (X2) is 0.288, which means that it has a positive relationship (reciprocal). If other independent variables have a fixed value and the facility increases by one unit, customer satisfaction (Y) will increase by 0.288. The coefficient is positive between facilities and customer satisfaction; if the facilities increase, customer satisfaction will increase.

4.2.6 Results of Correlation Testing and Coefficient of Determination (R2)

Table 6. Results of Correlation Testing and Determination Coefficient (R^2) Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.582[a]	0.783	0.787	0.91769

a. Predictors: (Constant), AMENITIES, SERVICE
Source: Data processed by researchers

From Table 6, an R value of 0.582 can be obtained. This indicates a weak relationship between service and facilities on customer satisfaction. For the R Square, it was obtained that it was 0.327 or (32.7%). This shows that the percentage of the contribution of the influence of the independent variables (services and facilities) to the dependent variable (customer satisfaction) is 32.7%, or the variation of the independent variables used in the model (services and facilities) can explain 32.7% of the variation in the dependent variable (customer satisfaction)., while the remaining 67.3% is influenced or explained by other variables not included in this study.

4.3 Hypothesis Test

4.3.1 Partial Test Result (t)

Table 7. Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.920	0.699		5.581	0.000
SERVICE	0.751	0.344	0.452	2.326	0.037
FACILITIES	0.259	0.339	0.158	3.255	0.021

a. Dependent Variable: CUSTOMER_SATISFACTION
Source: Data processed by researchers (2021).

Based on Table 7, the effect of the independent variable on the dependent variable is as follows:

The first hypothesis in this study is that service has a significant effect on customer satisfaction. 0.037 $<$ α 0.05, then the hypothesis (H1) is accepted. The service variable has t_{hitung} namely 2.326 with t_{tabel} 1.920. So, $t_{hitung} > t_{tabel}$ it can be concluded that service has a contribution to customer satisfaction. A positive t value indicates that the service variable has a direct relationship with customer satisfaction.

The second hypothesis of this study is that facilities have a significant effect on customer satisfaction. Based on the table above, the resulting significant value is 0.021, which means that the significant value is smaller than the probability value α 0.05 or 0.021 $<$ α 0.05, and the hypothesis (H2) is accepted. The facility variable has t_{hitung} that is 3.255 with t_{tabel} 1.920 so $t_{hitung} > t_{tabel}$ can be concluded that the facility has a contribution to customer satisfaction. A positive t value indicates that the facility variable has a reciprocal relationship with customer satisfaction. Therefore, it can be concluded that the facility has a significant effect on customer satisfaction.

4.3.2 Simultaneous Test (F)

Table 8. Simultaneous Test Results (F) ANOVA[a]

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	2.157	2	1.078	53.321	0.040[b]
Residual	31.503	97	0.325		
Total	33.660	99			

a. Dependent Variable: CUSTOMER_SATISFACTION
b. Predictors: (Constant), AMENITIES, SERVICE
Source: Data processed by researchers (2021).

Based on the Table 8, the ANOVA section shows that the p-value is significant. 0.040 $<$ 0.05 and F count = 53.321 $>$ F table = 3.18 (F table seen from table F with dk denominator value = 54 - 2 - 1 = 51 and dk numerator = 2 at the 5% significance level). While the correlation is $R = 0.582$, which means that there is a very strong correlation between Service Quality and Facilities and Customer Satisfaction.

The decision of the simultaneous hypothesis test is: H_0 is rejected and H_a is accepted, which means that Service Quality and Facilities have an effect on Customer Satisfaction. The simultaneous influence was 78.30% ($R^2 = 0.783$). The remaining 21.70% were influenced by other factors not examined in this study.

To test the hypothesis partially, for the Service variable (X1), p-value 0.000 $<$ 0.05 or t count 4.766 $>$ t

table 2.004. Then the Facility variable (X2) p-value $0.010 < 0.05$ or t count $4.801 > t$ table 2.004.

Then, the decision from the partial hypothesis test is:

1. The first hypothesis: H_0 is rejected and H_a is accepted, meaning that Service Quality (X1) has a partial effect on Customer Satisfaction (Y).
2. The second hypothesis: H_0 is rejected and H_a accepted, meaning that facilities (X2) have a partial effect on Customer Satisfaction (Y).

The influence of Service Quality (X1) and facilities (X2) on Customer Satisfaction (Y) is as follows:

Table 9. Path Calculation Results

Variables	Path Coefficient
Service Quality (X1)	0.460
Amenities (X2)	0.464

Source: Data processed by researchers (2021).

Based on Table 9, that variable X1 has a path coefficient of 0.460, and Variable X2 has a path coefficient of 0.464. These results are illustrated in the path equation as below.

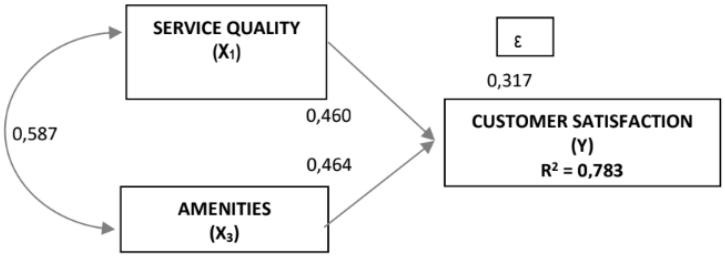

Figure 3. Path Analysis
Source: Data processed by researchers (2021)

The path equation can be described as follows: $Y = 0.460X1 + 0.464X2 + e$
Where: Y = Customer Satisfaction
X1 = Quality of Service
X2 = Amenities

The direct effect with path analysis can be calculated through the results of the effect of regression calculations (X1 and X2) then squared (a2). The indirect effect on Y can be calculated for Service Quality (X1) on Customer Satisfaction (Y) through Facilities (X2) and Facilities (X2) on Customer Satisfaction (Y) through Service Quality (X1). From the data above, it can be seen that the direct effect and indirect effect by means of path analysis of the independent variable on Y as the dependent variable. For more details, the calculation of the effect of the above variables is presented in the table below:

1. The influence of Service Quality (X1) on Customer Satisfaction (Y) is:

Table 10. Effect of Service Quality on Customer Satisfaction

Variable	Path analysis interpretation	Calculation Process	Magnitude of Influence
X_1	Direct influence to Y	0.460×0.460	0.212
X_1	Indirect influence through X_2 to Y	$0.460 \times 0.788 \times 0.464$	0.168
Total			**0.380**

Source: Data processed by researchers (2021)

Table 10 shows that the direct effect of service on customer satisfaction is 0.212 through service quality of 0.168 and overall is 0.380.

Table 11. Total Effects, Direct and Indirect Effects on Customer Satisfaction (Y)

Variables	Direct Influence	Indirect Influence		Total Effect
		X_1	X_2	
Service Quality (X_1)	21.20%	–	16.8%	38.00%
Amenities (X_2)	21.50%	18.8%	–	40.30%
Total	**42.70%**	**18.8%**	**16.8%**	**78.30%**

Source: Data processed by researchers (2021)

Based on Table 11, it can be seen that the Service Quality variable (X1) has a direct effect of 21.20%, and the indirect effect through its relationship with Service (X2) is 16.80%, so that the total effect is 38.00%. Facility variable (X2) has a direct effect of 21.50%, an indirect effect through its relationship with Service Quality (X1) of 16.80%, so that the total effect is 40.30%. Therefore, the overall effect of Service Quality (X1) and facilities (X2) on Customer Satisfaction (Y) is 78.30%. Meanwhile, other factors that have not been researched also affect Customer Satisfaction at PT. The assets of the Islamic People's Finance Bank Karimah Bekasi are shown by the value of Pye = 0.317 or 31.70%. Calculated as follows: e = 1-R2(0683) = 0.317 or 31.70.

5. Conclusions

Based on the results of the research and discussion on the effect of service quality and facilities on customer/user satisfaction with the Commuter Line train, the authors can draw the following conclusions. Service quality has a positive and significant effect on the satisfaction of KRL Commuter Line users. Facilities have a positive and significant effect on user satisfaction of Commuter Line. Service quality and facilities together have a positive and significant effect on customer satisfaction. Customer satisfaction is a factor that can influence customers' decision to continue to use mass rail transportation or switch to other forms of transportation, including private transportation, which will have an impact on the smoothness, comfort, and health of city residents. For this reason, a more aggressive and fast handling is needed, and the need for cooperation between the five regional heads, namely the Jabodetabek regional government and the PT KAI Commuter Line. The results of the analysis of public perceptions or train users on service quality and perceptions of the Commuter Line train facilities are very small, namely not more than 40% of the user satisfaction index. This is a warning for PT KAI to immediately improve the facilities located both on the train and inside the station for the convenience and safety of users. Future research can expand the research variables that can affect customer satisfaction. In this study, only 78.30% of customer satisfaction can be explained by the variables service quality and facilities, which means that approximately 21.70% is influenced by other factors not examined in this study.

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Author Contributions

AS contributed to conceptualization, methodology, and writing of the original draft. HH was responsible for data collection, formal analysis, supervision, and review.

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this study. This research was conducted independently, and no financial or personal relationships influenced the results or interpretation of the findings.

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