

**THE INFLUENCE OF SERVICE QUALITY AND ONLINE TICKET
PURCHASE SYSTEM ON CUSTOMER SATISFACTION
OF TRAIN SERVICE USERS
(A Study at PT. K.A Sribilah for the Medan-Rantauprapat Route)**

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Abstract

The low level of customer satisfaction at PT K.A generally arises because the quality of service provided is not in accordance with the expectations of railway customers. Low customer satisfaction will result in customers being reluctant to use rail transportation services. This study aims to analyze the influence of service quality and the online ticket purchasing system on customer satisfaction with Sribillah train services. The influence of the related variables, namely the quality of service and online ticket purchases, will be analyzed both partially and simultaneously on customer satisfaction. This study employs a quantitative research approach with an associative methodology. Sampling was done using purposive sampling techniques, involving 100 respondents as the research sample. Primary data for this study were obtained through the distribution of conventional questionnaires, and secondary data was gathered through a literature review. The analytical methods used include validity tests, classical assumption tests, reliability tests, multiple linear regression analysis, and hypothesis testing. The results of the research indicate that the service quality variable (X_1) and the online ticket purchasing system variable (X_2) both have a significant effect on customer satisfaction when considered separately. Furthermore, when these variables are considered together, they also have a significant impact on customer satisfaction. Based on the coefficient of determination test, there is a fairly strong relationship between service quality and online ticket purchases in influencing customer satisfaction, with an R value of 0.837. Through the adjusted R square, it is determined that service quality and online ticket purchases contribute to customer satisfaction by 31%.

Keywords: Customer Satisfaction, Online Ticket Purchase, Quality of Service

1. INTRODUCTION

The increasing competitiveness within the transportation service sector has prompted numerous companies to concentrate on meeting consumer needs and desires. It is widely acknowledged that the primary strategy for staying ahead in the competition is providing valuable products or services of high quality at competitive prices. Transportation plays a pivotal role in supporting national development and serves as a vital component in propelling the economy, influencing almost every facet of societal life in the pursuit of satisfying outcomes that bolster economic activities and regional growth.

In the modern era, especially in the realm of economics, transportation stands as the lifeline for government entities (Nursa'adah et al., 2022). One of the obligations of the government is delivering services to the public, encompassing the procurement of transportation resources. PT. Kereta Api Indonesia has seized this opportunity to elevate the quality of its services, particularly in the ticketing domain, through the creation of an online reservation ticket system. This system enables customers to book train tickets via the internet, eliminating the need for physical ticket counter visits at train stations.

However, practical implementation has yet to fully optimize the online reservation ticket program.

This is evident from the continued build-up of potential passengers at ticket counters in train departure stations. To attain its objectives, PT. Kereta Api (Persero) Cabang Medan must also engage in efforts to enhance its workforce, ensuring that it comprises individuals who are genuinely dependable and capable of elevating service quality and ticket sales for railway transportation users. When consumers have a positive experience with transportation services, they are more likely to consider these services in the future (Van Hagen & Bron, 2014).

In this research endeavor, the focus is placed on assessing the quality of service and the online ticket purchase system implemented by PT. Kai Sribillah Medan-Rantauprapat. Operating within the service sector, PT. Kai Sribillah Medan-Rantauprapat is compelled to consistently adapt to the ever-evolving landscape to remain competitive and garner the support of dedicated patrons. PT. Kereta Api Sribillah Medan-Rantauprapat has harnessed this opportunity to improve service quality, particularly within the ticketing sphere, by introducing an online reservation ticket system, facilitating the purchase of train tickets online without the necessity of physically visiting ticket counters at train stations. The enhancement of service quality holds paramount importance since, without appropriate service provision, service-oriented businesses can lead to customer discontent (Shah et al., 2020). Thus, enhancing service quality is indispensable for achieving customer satisfaction.

Customer satisfaction is intricately linked to the services encountered while consumers engage with a product or service. The shift from conventional ticket procurement to online platforms in KAI services must be supported by adequate infrastructure and preparation; otherwise, it could have detrimental effects on customer satisfaction. This can be witnessed through an array of customer grievances, ranging from issues related to ticket booking due to server downtime, uncertainties regarding seat availability, to sudden ticket unavailability within an exceptionally brief timeframe. Customer complaints can exert influence on perceived customer satisfaction stemming from the quality of the online ticket reservation service provided through the railway website (Ahmed et al., 2020). The substantial influx of traffic into the Rail Ticketing System has caused disturbances in the online ticketing service. Consequently, passenger services such as check-in, boarding, and go-show ticket sales are carried out online. The procurement of tickets online via KAI Access, Web KAI, and other authorized KAI sales channels has also encountered interruptions.

In response to the dynamic landscape of the transportation industry, the aim of this study is to analyze the impact of service quality and the online ticket purchasing system on customer satisfaction for PT. Kai Sribillah Medan-Rantauprapat. The study also seeks to identify and address issues related to online ticketing services, as well as propose strategies to enhance customer satisfaction in the context of railway transportation services.

2. LITERATURE REVIEW

Service Quality can be assessed by comparing consumers' perceptions of the actual service they receive with their expectations regarding a company's service attributes. When the received service surpasses customers' expectations, it is perceived as excellent

and of high quality. Conversely, if the received service falls short of what was anticipated, it is considered subpar. Customers generally expect that the products they consume, be it goods or services, are accompanied by satisfactory or excellent service. In response, companies make efforts to provide exceptional service quality, setting themselves apart from competitors. Service quality is defined as a dynamic condition related to products, services, human resources, processes, and environments that either meet or exceed expectations (Tjiptono & Chandra, 2016). Meanwhile, Kasmir (2017) defines service quality as actions or behaviors of an individual or organization aimed at providing satisfaction to customers or employees.

According to Parasuraman in Tjiptono (2016), two factors influence a service: expected service (anticipated service) and perceived service (service received). If the received service aligns with or surpasses expectations, it is deemed good or positive. Should perceived service exceed expected service, service quality is seen as ideal. Conversely, if perceived service falls short of expected service, service quality is seen as negative or poor. Consequently, service quality hinges on the company's ability to consistently meet customer expectations. Based on these viewpoints, it can be concluded that service quality encompasses five key elements: Physical Evidence, Assurance, Empathy, Responsiveness, and Reliability. To deliver positive quality service, a company must consistently meet customer expectations.

Exa (2019) asserts that online ticket reservation presents an opportunity to reduce costs and enhance customer convenience. Online ticket reservation minimizes ticketing process costs, eliminates paper forms, and increases flexibility for both customers and travel agents to modify travel schedules. In this context, the online ticket reservation system is a ticket booking mechanism that employs the internet (online) without necessitating physical visits to purchase train tickets at station ticket counters.

According to Oliver in (Tjiptono & Diana, 2015), Customer Satisfaction is the feeling of contentment or disappointment resulting from the comparison between the perceived performance (or results) of a product and one's expectations. Whether a customer feels satisfied or not predominantly depends on the product's performance (Perceived Performance) in relation to the customer's expectations, as well as whether the customer perceives any deviation or gap between performance and expectations. If the performance falls short of expectations, the customer will feel dissatisfied. If the performance matches expectations, the customer will be content. Conversely, if the performance surpasses expectations, the customer will feel highly satisfied or even delighted. Windasuri et al. (2016) add that customer satisfaction is an emotional response to the evaluation of one's consumption experience with a product or service.

3. RESEARCH METHODS

The researcher employed a quantitative approach, which, according to Sugiyono (2018), is a method rooted in positivism philosophy with the goal of describing and testing hypotheses formulated by the researcher. Quantitative research encompasses numerous numerical aspects, beginning with data collection, processing, and results that are predominantly numerical. The sample selection technique used in this research is the purposive sampling approach (Sugiyono, 2017), the samples chosen were intentionally determined based on specific criteria established by the author to obtain a representative sample.

Data collection techniques refer to the methods employed to obtain the necessary data and information for the research (Indrawan & Yaniawati, 2014). These data are derived from operationalized variables, using a specific measurement scale, namely nominal, ordinal, interval, and ratio scales." The data to be analyzed in this research are related to the relationship between research variables. The data analysis method to be used in this research is instrument testing, where the measuring tool plays a crucial role in collecting the expected data. Instrument testing aims to assess the research instrument that has been developed.

4. RESULTS AND DISCUSSION

4.1. Result

4.1.1. Validity Test

In this study, there were 100 respondents used as samples. In this test, the researcher distributed questionnaires to 40 respondents. To determine the validity of each statement item in the research instrument, it can be seen through the columns of r-statistic and r-table. If the r-statistic is greater than the r-table value, then the statement is considered valid. The r-statistic with $df = n - 2$, which is $100 - 2 = 98$, so the r-table value at a significance level of 5% is 0.1654. If the r-statistic is greater than 0.1654, then the question item is considered valid.

The validity test of the questionnaire instrument for the service quality variable (X1) in this study was conducted on 100 respondents, with an r-statistic of 0.1654. The results of the validity test for the service quality variable (X1) in this study can be seen in the following table:

Table 1. Results of Service Quality Validity Test

Statement	r-statistic	r-table	Description
P1	0,430	0,1654	valid
P2	0,343		valid
P3	0,351		valid
P4	0,545		valid
P5	0,366		valid
P6	0,640		valid
P8	0,640	0,1654	valid
P9	0,775		valid
P10	0,601		valid
P11	0,421		valid
P12	0,403		valid
P13	0,523		valid

Based on Table 1, it can be observed that the r-statistic for all statements in the questionnaire regarding service quality (X1) are greater than the r-table value. Therefore, it can be concluded that all statements are valid.

A. Validity Test for Online Ticket Purchase (X2)

Table 2. Results of Online Ticket Purchase Validity Test

Statement	r-statistic	r-table	Description
P14	0,559	0,1654	valid
P15	0,375		valid
P16	0,635		valid
P17	0,585		valid
P18	0,520		valid
P19	0,690		valid
P20	0,681		valid

Based on the above Table 2, it can be seen that the calculated r-statistic for all statements in the questionnaire regarding online ticket purchase (X2) are greater than the r-table value. Therefore, it can be concluded that all statements are valid.

B. Validity Test for Customer Satisfaction (Y)

Table 3. Results of Customer Satisfaction Validity Test

Statement	r-statistic	r-table	Description
P21	0,627	0,1654	valid
P22	0,700		valid
P23	0,562		valid
P24	0,733		valid
P25	0,623		valid

Based on Table 3, it can be observed that the r-statistic for all statements in the questionnaire regarding customer satisfaction (Y) are greater than the r-table value. Therefore, it can be concluded that all statements are valid.

4.1.2. Reliability Test

A. Service Quality

Table 4. Results of Service Quality Reliability Test

Cronbach's Alpha	N of Items
.763	13

Based on Table 4, it can be observed that the Cronbach's Alpha value is 0.763, which means $0.763 > 0.6$. Therefore, it can be concluded that all statements in the customer satisfaction variable (X1) are reliable or trustworthy.

B. Online Ticket Purchase

Table 5. Results of Online Ticket Purchase Reliability Test

Cronbach's Alpha	N of Items
.666	7

Based on Table 5, it can be observed that the Cronbach's Alpha value is 0.666, which means $0.666 > 0.6$. Therefore, it can be concluded that all statements in the online ticket purchase variable (X2) are reliable or trustworthy.

C. Customer Satisfaction

Table 6. Results of Customer Satisfaction Reliability Test

Cronbach's Alpha	N of Items
.672	5

Based on Table 6, it can be observed that the Cronbach's Alpha value is 0.672, which means $0.672 > 0.6$. Therefore, it can be concluded that all statements in the customer satisfaction variable (Y) are reliable or trustworthy.

4.1.3. Classical Assumption Test

A. Normality Test

Table 7. Results of Kolmogorov-Smirnov Normality Test

		Unstandardized Residual
N		100
Normal Parameters ^{a,b}	Mean	0E-7
	Std. Deviation	2.28260913
Most Extreme Differences	Absolute	.066
	Positive	.065
	Negative	-.066
Kolmogorov-Smirnov Z		.659
Asymp. Sig. (2-tailed)		.777

Based on the results of the Kolmogorov-Smirnov normality test in Table 7, it is known that the Asymp.Sig (2-tailed) value is $0.777 > 0.05$. Therefore, it can be concluded that the residual values are normally distributed.

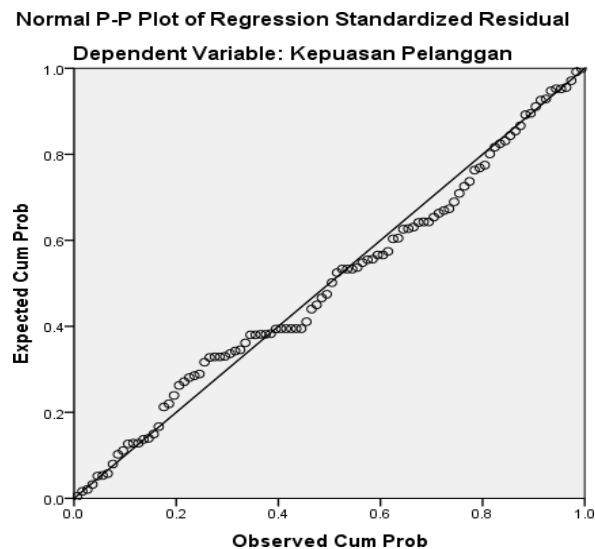


Figure 1. Normal Probability Plot Normal P-P Plot of Regression Standardized Residual

In the image above, it can be seen that the data points cluster around the diagonal line and follow the direction of the diagonal line. Therefore, the regression model used satisfies the assumption of normality.

B. Multicollinearity Test

Table 8. Multicollinearity Test Result

	Model	Sig.	Collinearity Statistics	
			Tolerance	VIF
	(Constant)	.275		
1	Service Quality	.001	.660	1.514
	Online Ticket Purchasing System	.016	.660	1.514

Based on Table 8, it can be observed that the tolerance for all variables is greater than 0.10, specifically for the service quality variable, it is $0.660 > 0.10$, and for the online ticket purchase variable, it is also $0.660 > 0.10$. This indicates that there is no multicollinearity present. Similarly, the VIF values for all variables are less than 10.00, with each variable having a value of $1.514 < 10.00$. This also suggests that there is no multicollinearity issue.

C. Multiple Linear Regression Analysis

Table 9. Multiple Linear Regression Analysis Result Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	2.409	2.194		1.098	.275
1 Service Quality	.183	.051	.370	3.563	.001
Online Ticket Purchasing System	.230	.094	.254	2.443	.016

Based on the results of the multiple linear regression analysis in the table above, the generated equation model is as follows:

$$Y = 2.409 + 0.183 X1 + 0.230 X2 + e$$

Based on the results of the multiple linear regression analysis obtained in Table 9, the multiple linear regression equation is as follows:

- The constant coefficient is 2.409, which means that when the independent variables, service quality (X1), and Online Ticket Purchase System (X2) are both valued at 0 (zero), the Customer Satisfaction (Y) is 2.409.
- The regression coefficient for service quality (X1) is 0.183, indicating that for every increase in the value of X1 by 1 unit, Customer Satisfaction (Y) will increase by 0.183. The coefficient has a positive value, which means a positive relationship between the service quality (X1) and Customer Satisfaction (Y). The higher the value of X1, the higher the value of Y.
- The regression coefficient for the Online Ticket Purchase System (X2) is 0.230, indicating that for every increase in the value of X2 by 1 unit, Customer Satisfaction (Y) will increase by 0.230. The coefficient also has a positive value, indicating a positive relationship between the Online Ticket Purchase System (X2) and Customer Satisfaction (Y). The higher the value of X2, the higher the value of Y.

4.1.4. Hypothesis Testing

A. Partial Test

Based on the table below, it can be observed that the service quality variable obtained a t-statistic of 3.563 > t-table value of 1.660 with a significance level of 0.001 < 0.05. Therefore, H1 is accepted, which means that service quality significantly influences job satisfaction partially. Furthermore, from table 10, it can be seen that the Online Ticket Purchase System variable obtained a t-statistic of 2.443 > t-table value of 1.660 with a significance level of 0.016 < 0.05. Therefore, H2 is accepted, which means that Online Ticket Purchase System significantly influences job satisfaction partially.

Table 10. Partial Test

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	2.409	2.194		1.098	.275
1 Service Quality	.183	.051	.370	3.563	.001
Online Ticket Purchasing System	.230	.094	.254	2.443	.016

B. Simultaneous Test (F Test)

Table 11. Simultaneous Test ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	231.940	2	115.970		
1 Residual	515.820	97	5.318	21.808	.000b
Total	747.760	99			

In the testing from Table 4.45, the obtained F-value is 21.808 with a significance level of 0.000. Based on the results of the F-test, it can be observed that the F-value of 21.808 > F-table with a significance level of 0.000. Therefore, H3 is accepted, indicating that both variables simultaneously have a significant influence on customer satisfaction.

C. Coefficient of Determination

Table 12. Coefficient of Determination Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.557 ^a	.310	.296	2.30602

4.2. Discussion

Table 13. Descriptive Analysis Table

Variables	Total Score	Ideal Score	%
Service Quality	4551	6500	70,1
Online Ticket Purchase	2587	3500	73,9

In this study, it is found that the service quality at PT. K.A Sribillah is rated as good. This means that the service quality provided to railway users on the Medan-Rantauprapat route aligns with consumer expectations. With a respondent answer distribution score of 70.1%, it proves that the service quality provided has a significant effect on consumers.

The availability of facilities and infrastructure is one of the factors that greatly influences customer satisfaction at PT. K.A Sribillah. Clean toilets are the most crucial aspect affecting service quality.

The research conducted by Puspita & Santoso (2018) titled "The Influence of Service Quality and Supporting Facilities on Customer Satisfaction at Lempuyangan Station Yogyakarta" aligns with the findings of this study. In Richa Mega Puspita's research, the physical evidence was identified as one of the factors significantly affecting customer satisfaction. Similarly, in this study, physical evidence is a crucial factor in increasing customer satisfaction. The availability of facilities and infrastructure must be well thought out to ensure the smooth operation of the railway business.

The variable of online ticket purchase has a score of 2587 out of 3500 from 7 statements, indicating a 73.9% satisfaction rate. This positive score is a result of the convenience in ticket booking. Ease of booking tickets is a key driver of increased customer satisfaction. This is in line with the research conducted by Taarufi (2018) titled "The Influence of System Quality, Information Quality, and Service Quality of the Rail Ticketing System (RTS) on Customer Satisfaction and Loyalty at PT. Kereta Api Indonesia Daop 6 Yogyakarta." Based on the research data, System Quality, Information Quality, and Service Quality all have a significant impact on Satisfaction. Ease of obtaining information and access plays a significant role in increasing scores for the online ticket purchase variable. It is hoped that PT. K.A Sribillah will continue to maintain and improve Information Quality, including providing accurate, complete, relevant, timely, and useful information to customers to further enhance customer satisfaction. With increased customer satisfaction, PT. K.A Sribillah's business can thrive.

5. CONCLUSION

Based on the research findings, it can be concluded that both service quality (X1) and online ticket purchasing (X2) significantly influence customer satisfaction in PT. K.A Sribillah Medan-Rantauprat. The presence of suitable facilities and infrastructure aligning with customer preferences positively affects satisfaction. Similarly, the availability of adequate information and the ease of access in online ticket purchases contribute to higher customer satisfaction levels. The combined effect of service quality and online ticket purchasing accounts for 31% of customer satisfaction, with the remaining 69% attributed to unexamined variables or other factors impacting job satisfaction.

Furthermore, PT. K.A Sribillah Medan-Rantauprat should invest in enhancing the online ticket purchasing experience, emphasizing ease of access and accurate information delivery. To gain a more comprehensive understanding of factors affecting customer satisfaction, future studies could explore unexamined variables or external factors, thus providing valuable insights for PT. K.A Sribillah's ongoing efforts to improve service and customer satisfaction in the railway transportation industry.

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