Factors Affecting the Decision to Purchase Train Tickets in Operation Area 6, Yogyakarta

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ABSTRACT

The purpose of this study is to determine: (1) the influence of service quality on train ticket purchasing decisions, (2) the influence of price on train ticket purchasing decisions, (3) the influence of facilities on train ticket purchasing decisions, (4) the influence of service quality, price, and facilities on train ticket purchasing decisions in Operating Area 6 Yogyakarta. This study used a quantitative method with a survey strategy. The population of this study was train passengers in Operating Area 6, Yogyakarta, who had purchased train tickets. The respondents sampled for this study were 119 people. This study used a purposive sampling technique. The data were collected using a prepared questionnaire. Furthermore, the reliability testing used Cronbach's Alpha, and validity used *product-moment correlation*. Questionnaires that have been proven valid and reliable are then used to collect data from respondents online. The data collected was then analyzed using multiple linear regression with the help of SPSS version 30 software. The results showed that: (1) service quality has a positive and significant effect on train ticket purchasing decisions as evidenced by the regression coefficient value of 0,331 with a t-count of 4,144 and a significance level of 0,001 <0,05, (2) price has a positive and significant effect on train ticket purchasing decisions as evidenced by the regression coefficient of 0,401 with a t_{count} value of 3,566 and a significance level of 0,001 <0,05, (3) facilities have a positive but insignificant effect on train ticket purchasing decisions as evidenced by the regression coefficient value of 0,121 with a t_{count} value of 1,288 but a significance level of 0,200>0,05, and (4) simultaneously, service quality, price, and facilities have a positive and significant effect on train ticket purchasing decisions as indicated by the statistical results of the F_{count} of 33,338 with a significance value of 0,001 <0,05. Likewise, the Adjusted R-Square value in this study obtained a value of 0,451, meaning that service quality, price, and facilities influence 45,1% of the decision to purchase train tickets for DAOP 6 Yogyakarta

Keywords:
Service Quality, Price, Facilities, Purchasing Decisions

1. Introduction

One of the most frequently used transportation by Indonesians is the train. According to the Central Statistics Agency (BPS) and *Databoks*, the number of railway passengers from January 2020 to September 2024 has fluctuated. Based on the data, this is influenced by various factors, such as pandemic conditions, service quality improvement, price suitability, and the development of railroad infrastructure. The data shows that in 2020, 2022, and 2023, the number of railway passengers has increased, while in 2021 and 2024 it has decreased, as shown in Figure 1. There are many causes for this decline, one of which is the difficulty that arises when using the Access by KAI

application to book tickets; for example, users often experience errors.

Figure 1. Number of Railroad Passengers 2020-2024

Number of Train Passengers in January 2020-September 2024

186,13 · 149,76 · 277,16 · 372,24 · 312,8

— Passengers
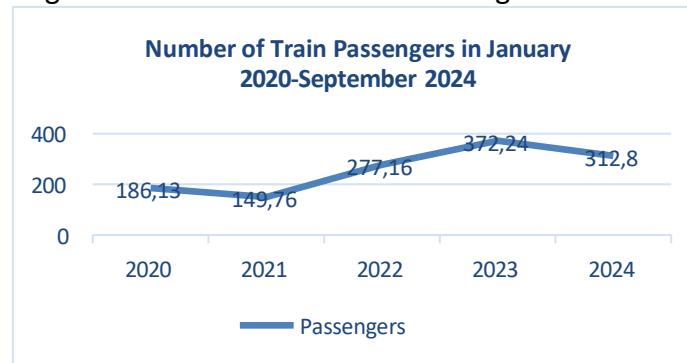
*Source: Central Bureau of Statistics (BPS) and Databoks.*

Similarly, according to Google Play Store Android 2023 data, the KAI Access application has received a low rating. There have been at least 14,9 million downloads, and the rating is 3,7, which is lower than the Tiket.com application, which has received 80 million downloads and a rating of 4,4 on a scale of 1-5. To improve service quality for passengers, PT KAI introduced an innovation: an independent ticket printing machine (CTM) to improve ticketing services. However, the CTM policy has not solved the problem, as there are still service complaints. For example, the menu at each station is different, and there is a lack of CTMs on certain occasions, and officers who should help prospective passengers with difficulties.

Service quality is important because it reflects the difference between the level of service delivered and customer expectations (Tjiptono, 2012). Kotler and Keller (2016) stated that five indicators of service quality are: (1) reliability, (2) responsiveness, (3) assurance, (4) empathy, and (5) physical. Previous research (Aulia et al., 2024) found that service quality positively and significantly impacts decisions to use railway transportation. This theoretical conclusion aligns with empirical findings. Additionally, service quality greatly influences purchasing decisions (Hadju, 2020). One proposition is how service quality influences purchasing decisions. Apart from service quality, price is also a determining factor in consumer satisfaction and intention to purchase goods or services. Kotler and Armstrong (2018) defined price as the amount of money consumers spend to obtain benefits from products or services. The description above is empirically reinforced by Hadju's (2020) research results showing that price significantly affects purchasing decisions. Therefore, the proposition that can be formulated is how price affects purchasing decisions.

Facilities are also the main element of a service business because those that match consumer expectations will attract attention and encourage purchases. According to Tjiptono (2014), facilities are the physical resources that must exist before services are offered to consumers. There are at least five indicators that shape service quality: (1) the condition of the facilities, (2) completeness, (3) interior design, (4) exterior, and (5) cleanliness (Sulastiyono, 2009). Good and bad facilities greatly influence consumers' attitudes toward making purchases, which is in line with the study's findings. Previous studies have shown that purchasing decisions are strongly influenced by facilities (Candra Alfarizi, 2020; Hadju, 2020). Therefore, the proposition that facilities influence purchasing decisions can be formulated.

Based on these propositions and results from previous relevant research, a graphical model can be created, as shown in Figure 2 below.

Figure 2. Research Paradigm/Model
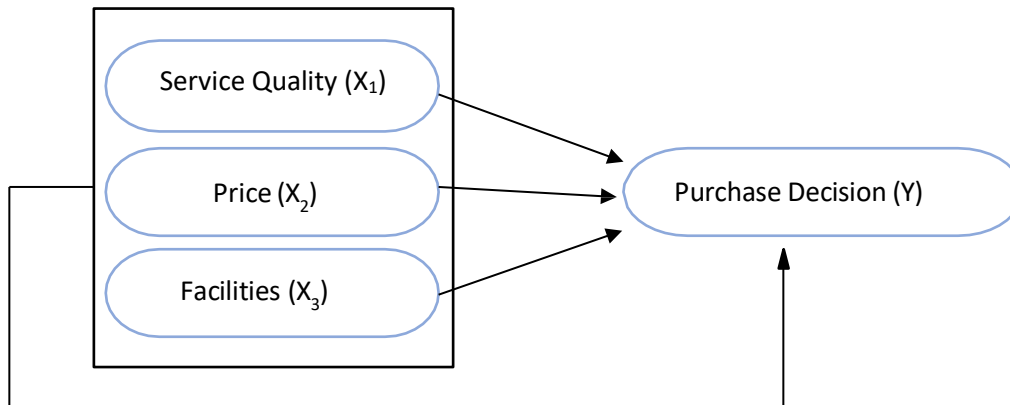
2.   Methods

This type of research used quantitative methods. According to Sugiono (2017), these methods are based on the philosophy of positivism and are used to study certain populations or samples. Data were collected using questionnaires and analyzed quantitatively/statistically to test predetermined hypotheses. In this study, the population was all people who took the train from Lempuyangan Station or Tugu Station in Yogyakarta, with a total sample of 119 respondents. The sampling technique used in this study is non-probability sampling based on the research objectives (purposive sampling). This study used a survey technique involving the distribution of questionnaires to respondents with a Likert scale measuring instrument.

3.   Result and Discussion
3.1 Results
3.1.1   Normality Test

Table 1. Normality Test Results

One-Sample Kolmogorov-Smirnov Test	Significance	Description
Asymp. Sig. (2-tailed)^c	0,095	Normal

Source: Data processed 2025

Table 1 shows that the results of the normality test obtained a significant value of 0,095> 0,05, meaning that the data in this study are normally distributed. *The Kolmogorov-Smirnov* test is stated with a significant value of more than 0,05, then the residual value is normally distributed. Meanwhile, if the significance value is less than 0,05, the residual value is not normally distributed.

3.1.2   Linearity Test

Table 2. Linearity Test Results

Variables	Significance	Description
Service Quality	0,171	Linear
Price	0,702	Linear
Facilities	0,129	Linear

Source: Data processed 2025

Based on Table 2, the linearity test results are as follows: service quality and purchasing

decisions, 0,171; prices and purchasing decisions, 0,702; and facilities and purchasing decisions, 0,129. All deviations from linearity significance values obtained are greater than 0,05, indicating that all X variables in this study have a linear relationship with the Y variable.

3.1.3 Multicollinearity Test

Table 3. Linearity Test Results

Variables	*Tolerance*	VIF	Description
Quality Services	0,535	1,868	Non-Multicollinearity
Price	0,671	1,489	Non-Multicollinearity
Facilities	0,566	1,768	Non-Multicollinearity

Source: Data processed 2025

Table 3 shows that the multicollinearity test results obtained a tolerance value greater than 0,1 for all variables and a Variance Inflation Factor (VIF) value less than 10. Therefore, it can be concluded that there are no symptoms of multicollinearity among the variables in this study.

3.1.4 Heteroscedasticity Test

Table 4. Heteroscedasticity Test Results

Variables	Significance	Description
Service Quality	0,634	No Heteroscedasticity
Price	0,310	No Heteroscedasticity
Facilities	0,754	No Heteroscedasticity

Source: Data processed 2025

Based on Table 4, the significance value on the variables of service quality, price, and facilities is more than 0,05, so it can be concluded that the test results in this study do not indicate heteroscedasticity.

3.1.5 Multiple Linear Regression Analysis

Table 5. Multiple Linear Regression Analysis Results

Variables	Coefficient Regression (β)	Std. *Error* Beta	t-count	Sig.
(Constant)	5,606	2,962	1,893	0,61
Service Quality	0,331	0,080	4,144	0,001
Price	0,401	0,112	3,566	0,001
Facilities	0,121	0,094	1,288	0,200

Source: Data processed 2025

Based on Table 5, multiple linear equations can be arranged as follows.

$$Y = 5,606 + 0,331X_1 + 0,401X_2 + 0,121X_3$$

Description:
Y = Purchase Decision
X_1 = Service Quality
X_2 = Price
X_3 = Facility

The interpretation of the multiple linear regression equation above can be explained as follows:
    a. The constant of 5,606 indicates that if all independent variables are constant 0, then the value of Y is 5,606.

b. Service quality (X_1) has a regression coefficient of 0,331, which indicates that when service quality (X_1) If it increases by 1, the purchasing decision (Y) will also increase by 0,331, assuming the other independent variables are constant. The regression coefficient is positive, which means that the relationship between service quality (X_1) and purchasing decisions (Y) is linear, so that the increase in service quality (X_1) will be linear with purchasing decisions (Y).

c. Price (X_2) has a regression coefficient of 0.401, which indicates that when the price (X_2) increases by 1, the purchasing decision (Y) will also increase by 0.401 if the other independent variables are constant. The regression coefficient is positive, which means that the relationship between price (X_2) and purchasing decisions (Y) is linear, so that the increase in price (X_2) will be linear with purchasing decisions (Y).

d. Facility (X_3) has a regression coefficient of 0,121, which indicates that when the facility (X_3) increases by 1, the purchasing decision (Y) will also increase by 0,121, assuming the other independent variables are constant. The regression coefficient is positive, which means that the relationship between facilities (X_3) and purchasing decisions (Y) is linear, so that the increase in facilities (X_3) will be linear with purchasing decisions (Y).

3.1.6 Hypothesis Test

3.1.6.1 t- test

Table 6. Hypothesis Test Results

Variables	t-count	Significance	Description
Quality Services	4,144	0,001	Positively affected
Price	3,566	0,001	Positively affected
Facilities	1,288	0,200	Positively affected

Source: Data processed 2025

Table 6 shows that all the results of the t-test on multiple linear regression have a positive effect. The following is an explanation of the t-test results for each variable.

a. Service Quality

Based on Table 6, it shows that the service quality variable has a significant value of 0,001, which means it is smaller than the specified significance value of 0,05. When viewed from the level of significance, the partial effect of each independent variable on the dependent variable can be analyzed through a comparison between the t_{count} and t_{table} values. The t_{table} value in this study was obtained at 1,98081, while the t_{count} value for the service quality variable reached 4,144. Therefore, the hypothesis that service quality (X_1) positively affects purchasing decisions (Y) is accepted.

b. Price

Table 6 shows that the price variable has a significance value of 0,001, which means it is smaller than the specified significance value of 0,05. When viewed from the level of significance, the partial effect of each independent variable on the dependent variable can be analyzed through a comparison between the t_{count} and t_{table} values. The t_{table} value in this study was obtained at 1,98081, while the t_{count} value for the price variable reached 3,566. Therefore, the hypothesis that rice (X_2) positively affects purchasing decisions (Y) is accepted.

c. Facilities

According to Table 6 shows that the facility variable has a significance value of 0,2, which means it is greater than the specified significance value of 0,05. When viewed from the level of significance, the partial effect of each independent variable on the dependent variable can be analyzed through

a comparison between the t_{count} and t_{table} values. The t_{table} value in this study was obtained at 1,98081, while the t_{count} value for the facility variable reached 1,288. Therefore, the hypothesis that facilities (X_3) have a positive effect on purchasing decisions (Y) is rejected.

3.1.6.2 F-test

Table 7. F-Test Results

Model	F	Significance	Description
Regression	33,338	0,001	Simultaneous effect

Source: Data processed 2025

Based on Table 7, which shows the results of the F-test calculation, it is known that the significance value is 0,001 <0,05, which means that service quality, price, and facilities have a significant effect simultaneously on purchasing decisions. The results of the calculation of the F_{count} and F_{table} values obtained the F_{count} value is more than F_{table} of 33,338> 2,68, which strengthens the conclusion that all independent variables in this study are proven to affect the dependent variable together (simultaneously).

3.1.6.3 Coefficient of Determination (R^2)

Table 8. Test Results of the Coefficient of Determination (R^2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,682	0,465	0,451	2,161

Source: Data processed 2025

Table 8 shows that the coefficient of determination (R^2) shown in the *Adjusted R Square* value is 0,451 or 45,1%. This figure means that in the regression equation model of this study, the purchase decision as the dependent variable can be proxied by service quality, price, and facilities as independent variables by 45,1%, while the remaining 54,9% is influenced by other factors not included in the regression model of this study.

3.2 Discussion

3.2.1 The Effect of Service Quality on Purchasing Decisions

The hypothesis that service quality has a positive effect on purchasing decisions in this study is accepted. This statement is supported by the t-test results, which show that the significance level is below the specified error limit. This is evidenced by the regression coefficient obtained, showing a positive value of 0,331 with a t_{count} of 4,144 and a significance level of 0,001 less than 0,05 (sig. <0,05). It can be concluded that the service quality variable has a positive and significant effect on purchasing decisions.

3.2.2 The Effect of Price on Purchasing Decisions

The hypothesis that price has a positive effect on purchasing decisions in this study is accepted. This statement is supported by the results of the t-test, which show that the significance level is below the predetermined error limit. This is evidenced by the regression coefficient obtained, showing a positive value of 0,401 with a t_{count} of 3,566 and a significant level of 0,001 less than 0,05 (sig. <0,05). It can be concluded that the service quality variable has a positive and significant effect on purchasing decisions.

3.2.3 The Effect of Facilities on Purchasing Decisions

The hypothesis that facilities have a positive effect on purchasing decisions in this study is rejected. This statement is supported by the results of the t-test, which shows the level of

significance is above the predetermined error limit. This is evidenced by the regression coefficient obtained, showing a positive value of 0,121 with a t_{count} of 1,288 and a significance level of 0,2> 0,05 (sig. >0,05). It can be concluded that facilities have a positive effect on purchasing decisions, but are not significant.

3.2.4 The hypothesis that service quality, price, and facilities have a positive effect on purchasing decisions in this study is accepted. This can be proven by the results of the F-test, which shows a significant value of 0,001 <0,05, so that it can be interpreted that service quality, price, and facilities simultaneously have a positive and significant effect on purchasing decisions. The results of the calculation of the F_{count} and F_{table} values show that the $F_{count} > F_{table}$ value (33,338> 2,68), this strengthens the conclusion that all independent variables in this study are proven to affect the dependent variable together (simultaneously).

4. Conclusion

- There is a positive and significant correlation between service quality and train ticket purchasing decisions in Operating Area 6 in Yogyakarta.
- There is a positive and significant correlation between price and train ticket purchasing decisions in Operating Area 6, Yogyakarta.
- There is a positive, though insignificant, influence of facilities on train ticket purchasing decisions in Operating Area 6, Yogyakarta.
- There is a simultaneous positive and significant influence of service quality, price, and facilities on train ticket purchasing decisions in Operating Area 6, Yogyakarta. This is proven by the adjusted R-square test results of 0,451, or 45,1%.

Future research could consider adding other variables that might affect purchasing decisions, such as brand image, promotions, brand experience, and customer loyalty. Further research can also use different sampling techniques to provide more in-depth results. Future research can also be conducted on a broader scale so that the results can be generalized.

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