# PENGARUH KEMUDAHAN, KUALITAS INFORMASI, DESAIN WEB, KEAMANAN, DAN METODE PEMBAYARAN TERHADAP KEPUASAN PENUMPANG DALAM MEMBELI TIKET KERETA API BANDARA YOGYAKARTA INTERNATIONAL AIRPORT SECARA ONLINE

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### **ABSTRACT**

This study aims to analyze the influence of convenience, information quality, web design, security, and payment methods on passenger satisfaction in buying Yogyakarta International Airport train tickets online. The research method used is a quantitative approach with multiple linear regression techniques. The sample of this study consisted of 100 respondents who were selected using a simple random sampling technique. The results showed that the ease and quality of information did not have a significant effect on passenger satisfaction, while web design, security, and payment methods had a significant effect on passenger satisfaction in purchasing tickets online. The implications of this research can be used as evaluation material for railway service managers in improving customer satisfaction. The novelty in this study is the focus on the online ticket service of Yogyakarta International Airport (YIA) which is still rarely studied with the finding that ease and quality of information do not have a significant effect on customer satisfaction, in contrast to previous research which stated that convenience is the main factor in the adoption of digital services, but web design and security actually have a greater influence.

**Keywords:** Information Quality, Website Design, Payment Method, Passenger Satisfaction

# **ABSTRAK**

Penelitian ini bertujuan untuk menganalisis pengaruh kemudahan, kualitas informasi, desain web, keamanan, dan metode pembayaran terhadap kepuasan penumpang dalam membeli tiket Kereta Api Bandara Yogyakarta *International Airport* secara online. Metode penelitian yang digunakan adalah pendekatan kuantitatif dengan teknik regresi linier berganda. Sampel penelitian ini terdiri dari 100 responden yang dipilih menggunakan teknik *simple random sampling*. Hasil penelitian menunjukkan bahwa kemudahan dan kualitas informasi tidak



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berpengaruh signifikan terhadap kepuasan penumpang, sedangkan desain web, keamanan, dan metode pembayaran berpengaruh signifikan terhadap kepuasan penumpang dalam pembelian tiket secara online. Implikasi penelitian ini dapat digunakan sebagai bahan evaluasi bagi pengelola layanan kereta api dalam meningkatkan kepuasan pelanggan. Kebaruan dalam penelitian ini adalah focus pada layanan tiket online KA Bandara Yogyakarta *International Airport* (YIA) yang masih jarang dikaji dengan temuan kemudahan dan kualitas informasi tidak berpengaruh signifikan terhadap kepuasan pelanggan, berbeda dengan penelitian sebelumnya yang menyatakan bahwa kemudahan adalah faktor utama dalam adopsi layanan digital, akan tetapi Desain web dan keamanan justru memiliki pengaruh yang lebih besar

**Kata Kunci:** Kualitas Informasi, Desain Web, Metode Pembayaran, Kepuasan Penumpang.

#### INTRODUCTION

The development of information technology has driven digital transformation in various sectors, including transportation. PT Kereta Api Indonesia (Persero) has implemented an online ticket booking system through the Access by KAI application to improve comfort and efficiency for passengers. The app allows users to book tickets, check schedules, and obtain travel information in real-time (Tri Rahmawati, Disi Fasa., Nuriani, Rema Sekar., Amrizal, Muhammad., Setiawan, 2024). Yogyakarta International Airport (YIA), as one of the main gateways in the Yogyakarta area, offers airport train services that can be booked online. However, passenger satisfaction with this service is influenced by various factors such as ease of use, quality of information, web design, transaction security, and available payment methods.

Although the Access by KAI application is designed to provide convenience, there are still challenges in improving user satisfaction. Previous research showed that the ease of use of the Access by KAI application has a significant effect on user satisfaction, but the aspects of navigation and application stability still need to be improved (Tri Rahmawati, Disi Fasa., Nuriani, Rema Sekar., Amrizal, Muhammad., Setiawan, 2024). In addition, the quality of the information presented in the application is also an important factor. The accuracy and timeliness of information in the KAI Access application affects the level of user satisfaction (Setiawan & Novita, 2021). In addition, convenience has a significant effect on online buying interest (Insani, 2013). This study also states that the aspects of efficiency, fulfillment, and system availability have a significant effect on customer satisfaction in PT KAI's online ticket reservation service (Insani, 2013).

Trust in the security of the online payment system is a crucial factor in customer satisfaction. Previous research showed that the efficiency, fulfillment, and availability of the system had a significant effect on customer satisfaction in PT KAI's online ticket reservation service (Ariefian Isnan, 2014)

Therefore, the purpose of this study is to test the significance of the influence of convenience on passenger satisfaction in buying Yogyakarta International Airport Train tickets online, the effect of information quality on passenger satisfaction in buying Yogyakarta International Airport Train tickets online, the influence of web design on passenger satisfaction in buying Yogyakarta International Airport Train tickets online, the effect of security on passenger satisfaction in buying Yogyakarta International Airport Train tickets online, the effect of payment methods on passenger satisfaction in buying Yogyakarta International Airport Train tickets online, as well as the effect of

convenience, information quality, web design, security, and payment methods together on passenger satisfaction in buying Yogyakarta International Airport Train tickets online.

#### **RESEARCH METHODS**

This study uses a quantitative approach with multiple linear regression analysis techniques. The population in this study is all passengers who have bought YIA Airport train tickets online. A research sample of 100 respondents was selected using a simple random sampling technique. Data was collected through an online questionnaire measured using a 5-point Likert scale. Validity and reliability tests are carried out to ensure that the research instrument meets valid and consistent measurement standards

### **RESULT**

The data source of this study was obtained from the questions listed on the questionnaire distributed to the respondents. The questionnaire given to respondents contained details of questions about the website for purchasing tickets for Yogyakarta International Airport. The amount of data obtained from respondents is 100 data that are ready to be processed.

The determination of the respondent's answers to the granular questions given by the researcher is then analyzed so that in accordance with the research to be carried out can be seen as Respondent Characteristics (1) From the results of the study, the characteristics of the respondents were obtained as follows 48 male respondents (48%) and 52 female respondents (52%). It was concluded that more women often use the Yogyakarta International Airport Train ticket purchase website with a slight difference compared to men who also often use the Yogyakarta International Airport Train ticket purchase website, (2), Respondents in this study were 21 people (21%) for those who were a maximum age of 20 years, 60 people (60%) aged 21-30 years, 10 people (60%) aged 21-30 years, 10 people aged 31-40 years (10%), and 9 people (9%) over 40 years old. This figure shows that the majority of those who use the Yogyakarta International Airport Train ticket purchase website are young people, namely respondents aged 21-30 years (60%), (3). The respondents in this study were 52 people (52%) for the maximum (junior high school), 14 (D1-D4) and 34 people (34%) for Bachelor (S1-S3). According to the table presented, most users of the Yogyakarta International Airport Train ticket buying website are those who have a maximum level of education (junior high school and high school), (4). The respondents in this study were 23 students or students (23%), 6 civil servants/TNI/Polri (6%), 47 private employees (47%), 6 entrepreneurs (6%), and others as many as 18 people (18%). From the results of the table above, it can be seen that the dominant users of the Yogyakarta International Airport Train ticket purchase website are people who work as private employees, (4). Respondents with an average monthly income in this study were a maximum of IDR 2,000,000 with a maximum of 30 people (30%), with an income of IDR 2,000,001 - IDR 3,000,000 there were 16 people (16%), IDR 3,000,001 – IDR 4,000,000 there were 13 people (13%), and with an income of >IDR 4,000,000 there were 41 people (41%). So it was concluded that the user of the Yogyakarta International Airport Train ticket purchase website had an income of >IDR 4,000,000.

QUANTITATIVE DATA ANALYSIS

Table 1. Validity Test of All Variables

Table 1. Validity Test of All Variables								
Variable	No Item	R. Hitung	R. Tabel	Annotation				
	Q1X1	0,916	0,202	Valid				
Convenience	Q2X1	0,925	0,202	Valid				
Convenience	Q3X1	0,884	0,202	Valid				
	Q4X1	0,911	0,202	Valid				
	Q1X2	0,851	0,202	Valid				
Quality of	Q2X2	0,915	0,202	Valid				
Information	Q3X2	0,861	0,202	Valid				
	Q4X2	0,858	0,202	Valid				
	Q1X3	0,906	0,202	Valid				
W   B '	Q2X3	0,913	0,202	Valid				
Web Design	Q3X3	0,898	0,202	Valid				
	Q4X3	0,913	0,202	Valid				
	Q1X4	0,923	0,202	Valid				
C- C- L	Q2X4	0,917	0,202	Valid				
Safety	Q3X4	0,927	0,202	Valid				
	Q4X4	0,932	0,202	Valid				
	Q1X5	0,911	0,202	Valid				
Day was and Madle and	Q2X5	0,905	0,202	Valid				
Payment Methods	Q3X5	0,900	0,202	Valid				
	Q4X5	0,936	0,202	Valid				
	Q1Y	0,917	0,202	Valid				
		•	. •					

Source: primary data processed

Passenger Satisfaction

Based on the Table 1, it shows that all items are declared valid, because the resulting coefficient is greater than 0.202. So there is no need to replace or delete the statement.

Q2Y

Q3Y

Q4Y

Q5Y

0,920

0,887

0,923

0,878

0,202

0,202

0,202

0,202

Valid

Valid

Valid

Valid

**Table 2. Reliability Test** 

rabic 2: iteliability rest			
Variable	Cronbach	Limit of Cronbach	Annotation
Convenience	0,929	0,6	Reliable
Information quality	0,894	0,6	Reliable
Web design	0,929	0,6	Reliable
Safety	0,943	0,6	Reliable
Payment method	0,933	0,6	Reliable
Passenger Satisfaction	0,944	0,6	Reliable

Source: primary data processed

Based on the Table 2, it can show the results of this study if the convenience, quality of information, web design, safety, payment methods and passenger satisfaction are declared reliable.

**Table 3. Quantitative Data Analysis or Multiple Linear Analysis** Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	-	В	Std. Error	Beta	<del>-</del>	
1	(Constant)	.248	.175		1.421	.158
	X1	080	.052	088	-1.555	.123
	X2	.043	.097	.039	.439	.661
	X3	.264	.075	.262	3.520	.001
	X4	.339	.073	.365	4.624	.000
	X5	.384	.076	.398	5.021	.000

a. Dependent Variable: Y

Source: primary data processed

Based on the Table 3, the results of the multiple linear regression test shown are obtained

 $Y = 0.248 + (-0.080) X_1 + 0.043 X_2 + 0.264 X_3 + 0.339 X_4 + 0.384 X_5 + e$ 

The description of the multiple linear regression equation is described as follows (1). Constant values (a), A constant value of 0.248 indicates that if convenience (X1), information quality (X2), web design X3), security (X4), and payment method (X5) are equal to zero (0), then the customer satisfaction value (Y) is 0.248, (2). Convenience regression coefficient (β1), the convenience regression coefficient (X1) in the equation obtained is -0.080, which means that if convenience (X1) increases by one unit, the value to customer satisfaction (Y) will decrease by -0.080 assuming the other variables do not change. (3). Information quality regression coefficient (β2), the information quality regression coefficient (X2) in the equation is obtained as 0.043, then if the information quality (X2) decreases by one unit, the customer satisfaction value (Y) will decrease by 0.043 assuming other variables are valued at zero (0), (4). Web design regression coefficient (β3), the web design regression coefficient (X3) in the equation is obtained as 0.264, then if the web design (X3) increases by one unit, the customer satisfaction value (Y) will increase by 0.264 assuming other variables are valued at zero (0), (5). Safety regression coefficient (β4), Tte security regression coefficient (X4) in the equation is obtained as 0.339, then if the security (X4) increases by one unit, the customer satisfaction value (Y) will increase by 0.339 assuming other variables are zero (0). (6). Payment method regression coefficient (β5), the payment method regression coefficient (X5) in the equation is obtained as 0.384, then if the payment method (X5) increases by one unit, the customer satisfaction value (Y) will increase by 0.384 assuming other variables are worth zero (0).

### **HYPOTESIS TEST**

Partial Test (Uji t)

To test the variables of convenience (X1), information quality (X2), web design X3), security (X4), and payment method (X5)) and passenger satisfaction (Y). If the results of the t-test are obtained a significant value of <0.05 or tcalcul>ttable. The results of the t-test on each variable are as follows, according to the table above, it is obtained, namely, the significance level is set at 0.05, specifies ttable i.e. ttable = a/2; N-K-1 Information:

a = significant levels are 0,05

n = Number of respondents

k = Number of independent variables

 $t_{tabel} = a/2$ ; n-k-1 = 0,05/2 ; 100-5-1 = 0,025 ; 94 =1,98552

Kriteria

Ho rejected Ha Accepted if  $t_{hitung}>t_{tabel}$  atau sig<0.05 Ho Accepted Ha rejected if  $t_{hitung}<t_{tabel}$  atau sig>0.05

### **Testing Against Facility Variables (X1)**

Ho partially found no significant effect between the convenience variable (X1) on the passenger satisfaction variable (Y). Ha partially there is a significant influence of the convenience variable (X1) on the passenger satisfaction variable.

From the results of the calculation of the table, the result of the calculation (-1.555) < the ttable is 1.985 which means that convenience (X1) does not have a significant effect on passenger satisfaction (Y) or the significant value of the convenience variable of 0.123 which is greater than a (0.05) or 0.123 > 0.05, then Ho is accepted Ha is rejected.

### **Testing Information Quality Variables (X2)**

Ho was no significant effect between the information quality variable (X2) on the passenger satisfaction variable (Y). Ha is a partial significant influence of the information quality variable (X2) on the passenger satisfaction variable (Y)

From the results of the calculation of the table, the result of the calculation was 0.439 < ttable 1.985 which means that the quality of information (X2) did not have a significant effect on passenger satisfaction (Y) or the significant value of the variable of information quality of 0.661 which was greater than a (0.05) or 0.661 > 0.05, then Ho was accepted Ha was rejected.

### **Testing Against Web Design Variables (X3)**

Ho partially found no significant effect between the web design variable (X3) on the passenger satisfaction variable (Y). There is a partial significant influence of the web design variable (X3) on the passenger satisfaction variable (Y)

From the results of the calculation of the table, the results of the calculation were obtained > ttable 1.985 which means that the web design (X3) has a significant effect on passenger satisfaction (Y) or the significant value of the web design variable of 0.001 which is smaller than a (0.05) or 0.001 < 0.05, then Ho is rejected Ha is accepted.

### **Testing against safety variables (X4)**

Ho partially found no significant effect between the safety variable (X4) on the passenger satisfaction variable (Y). Ha there is a partial significant influence of the safety variable (X4) on the passenger satisfaction variable (Y)

From the results of the calculation of the ttable, the results of the calculation were obtained > ttable 1.985 which means that safety (X4) has a significant effect on passenger satisfaction (Y) or the significant value of the safety variable of 0.000 which is smaller than a (0.05) or 0.000 < 0.05, then Ho is rejected Ha is accepted.

# **Testing Against Payment Method Variables (X5)**

Ho partially found no significant influence between the payment method variable (X5) on the passenger satisfaction variable (Y). Ha partially there is a significant influence of the payment method variable (X5) on the passenger satisfaction variable (Y)

From the results of the calculation of the ttable, the result of tcal 5.021 > ttable 1.985 which means that the payment method (X5) has a significant effect on passenger

satisfaction (Y) or the significant value of the variable payment method of 0.000 which is smaller than a (0.05) or 0.000 < 0.05, then Ho is rejected Ha is accepted.

#### **DISCUSSION**

The purpose of this study is to determine the influence of convenience (X1), information quality (X2), web design (X3), safety (X4) and payment method (X5) on passenger satisfaction (Y)

# Effect of Convenience (X1) on Passenger Satisfaction (Y)

The results of regression analysis and partial testing (t-test) on the convenience variable showed a tcal value of -1.555 < a ttable of 1.985, which means that convenience (X1) did not have a significant effect on passenger satisfaction (Y). So the statement in hypothesis 1 which states that "there is a significant influence of convenience on passenger satisfaction in buying Yogyakarta International Airport train tickets online" is stated to be unsupported.

The results of this study are not in accordance with previous research Marie et al. (2023), Sitompul et al. (2022), Putra and Raharjo (2021) argue that "ease of use has an effect on customer satisfaction". However, the results of this study are in accordance with research conducted by Suryani and Ramadhani (2022) which states that "perceived ease of use has no effect and is not significant on customer satisfaction".

So this shows that if there is a change in the ease of use of the Yogyakarta International Airport train ticket purchase website, it does not affect the level of passenger satisfaction, which means that if there is ease or difficulty in accessing the website, it does not affect passenger satisfaction either in the long or short term. Where this may happen because there is a comparison made by passengers on the website with other Airport Train ticket purchase applications that are the same level of convenience, so that passengers feel that they do not get a new experience or an ordinary feeling when using the Yogyakarta International Airport Train ticket purchase websitewhich makes passengers less dependent on buying Airport Train tickets on the website.

### The Effect of Information Quality (X2) on Passenger Satisfaction (Y)

The results of regression analysis and partial testing (t-test) on the information quality variable showed a calculated value of 0.439 < a table of 1.985, which means that the quality of information (X2) did not have a significant effect on passenger satisfaction (Y). Therefore, the statement in hypothesis 2 which states that "there is a significant influence of information quality on passenger satisfaction in buying Yogyakarta International Airport Train tickets online" is declared unsupported.

The results of this study proved to be quite consistent with previous researchers Sidanta et al. (2022) said that "for information quality variables do not have a significant influence on consumer satisfaction". In this case, it means that passengers feel that the quality of the information displayed is not in accordance with the description listed on the Yogyakarta International Airport Train ticket purchase website so that consumers are not satisfied with the delivery of the quality of information on the website.

### The Influence of Web Design (X3) on Passenger Satisfaction (Y)

The results of regression analysis and partial testing (t-test) of web design variables showed a tcal value of 3.520 > a ttable of 1.985. Which means that web design (X3) has a significant influence on passenger satisfaction (Y). So the statement on

hypothesis 3 which states that "there is a significant influence of web design on passenger satisfaction in buying Yogyakarta International Airport Train tickets online" is stated to be supported.

The results of this study are in accordance with previous research conducted by Rasli et al. (2018), Putra and Octavia (2017), and Sidanta et al. (2022) said that "website design has a significant effect on customer satisfaction." In that case, it means that passengers feel that the design displayed on the Yogyakarta International Airport Train ticket purchase website has an attractive and good appearance so that it has its own attraction value and will reduce the time to search for information and reduce the risk of non-conformity for passengers who will use the website.

### The Effect of Safety (X4) on Passenger Satisfaction (Y)

The results of regression analysis and partial testing (t-test) of the safety variable showed a tcal value of 4.624 > a ttable of 1.985. These results show that safety (X4) has a significant influence on passenger satisfaction (Y). So the statement in hypothesis 4 which states that "there is a significant influence of security on passenger satisfaction in buying Yogyakarta International Airport Train tickets online" is stated to be supported.

The results of this study are also supported by the theories of previous researchers Sidanta et al. (2022) and Suryani and Koranti (2022) who stated that "security affects customer satisfaction". In this case, it can be concluded that passengers feel that the security of personal data such as personal identity, mobile phone number or email on the Yogyakarta International Airport Train ticket purchase website can be guaranteed so that passengers believe that when they will enter their personal data or identity on the website, the data will be safe.

### Effect of Payment Method (X5) on Passenger Satisfaction (Y)

The results of regression analysis and partial testing (t-test) on the payment method variable showed a tcal value of 5.021 > a ttable of 1.985. The results of the analysis show that the payment method (X5) has a significant influence on passenger satisfaction (Y). So the statement in hypothesis 5 which states that "there is a significant influence of payment methods on passenger satisfaction in buying Yogyakarta International Airport train tickets online" is stated to be supported.

The results of this study are supported by the theory of previous researchers Istiana and Mulia (2021) who stated that "payment method variables have a positive and significant effect on customer satisfaction variables". In this case, it can be concluded that passengers feel that the payment method offered on the Yogyakarta International Airport train ticket purchase website can be easily understood and does not require much effort so that it can save passengers' time, so that it will cause satisfaction for passengers who will make transactions.

### **CONCLUSION**

Based on the results of the analysis and explanation that the author has conveyed in the description of the previous chapter, the author can draw the following conclusions:

1. The first hypothesis that convenience has a significant effect on passenger satisfaction in buying Yogyakarta International Airport train tickets online is not supported

- 2. The second hypothesis that the quality of information has a significant effect on passenger satisfaction in buying Yogyakarta International Airport train tickets online is not supported
- 3. The third hypothesis that web design has a significant effect on passenger satisfaction in buying Yogyakarta International Airport train tickets online is supported
- 4. The fourth hypothesis that security has a significant effect on passenger satisfaction in buying Yogyakarta International Airport train tickets online is supported
- 5. The fifth hypothesis that the payment method has a significant effect on passenger satisfaction in buying Yogyakarta International Airport Train tickets online is supported
- 6. The sixth hypothesis that convenience, information quality, web design, security, and payment methods have a significant effect together on passenger satisfaction in buying Yogyakarta International Airport train tickets online is supported

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