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Analysis of the Influence of Trust, Security, and E-Service on Purchasing Decisions for Climbing Tickets through the *Tiket Pendakian* Application

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Abstract

The advancement of digital technology has significantly changed tourism services, including the mountain climbing ticket booking system. One such innovation is the Tiket Pendakian application, an Indonesian platform designed to facilitate online reservations for mountain climbing activities. This study aims to examine the influence of trust, security, and e-service quality on users' decisions to purchase climbing tickets through the application. A quantitative research method was used, using a survey distributed to 100 respondents who had used the platform. Data were collected through an online questionnaire and analyzed using multiple linear regression to assess the partial and simultaneous effects of these variables. The results showed that trust and e-service quality had a positive and significant influence on purchasing decisions. In contrast, security did not show a significant partial effect, although the three variables collectively influenced purchasing decisions. These findings reinforce the importance of trust and service quality in digital tourism platforms

Keyword: Trust, Security, E-Service Quality, Purchase Decision, Tiket Pendakian Application

1. Introduction

The rapid advancement of digital technology has transformed various sectors, including tourism and outdoor recreational services. Online-based systems are increasingly becoming the primary choice for consumers to plan and book services, including mountain climbing activities. In Indonesia, one such innovation is the Tiket Pendakian application, which allows users to book climbing tickets online. Although the application offers convenience and efficiency, its usage is significantly influenced by users' perceptions—particularly in terms of trust, security, and e-service (digital service quality).

Several previous studies have emphasized the importance of trust in shaping consumer behavior in digital transactions. Chen et al. (2020) found that trust plays a vital role in increasing customer loyalty and purchase decisions on e-ticketing platforms. Kim and Peterson (2018) revealed that perceived security significantly affects user trust in online travel booking sites. In terms of digital service quality, Parasuraman et al. (2019) highlighted that speed and ease of use are critical in fostering user satisfaction. Wang et al. (2017) concluded that user decisions in digital tourism services are influenced by a combination of trust, convenience, and platform credibility. Furthermore, Lee et al. (2023) emphasizes the importance of personalized service experiences and payment transparency in enhancing user satisfaction with online ticketing services. Susipta et al. (2025) also demonstrated that purchase decisions on digital platforms are influenced not only by platform features but also by psychological perceptions such as risk and testimonial-based trust, particularly in cash-on-delivery contexts.

However, there is still limited research specifically examining the combined effects of trust, security, and e-service on purchasing decisions within the context of mountain climbing ticket applications, especially in emerging markets like Indonesia. This highlights a relevant gap in the existing literature.

Therefore, this study aims to analyze the effect of trust, security, and e-service on users' purchasing decisions through the Tiket Pendakian application. The findings are expected to provide strategic insights for application developers and contribute to the growing body of research in digital tourism information systems.

2. The Art of Research

1. The Influence of Trust on Purchasing Decisions

Trust is one of the most crucial psychological factors in influencing consumer behavior in online transactions. Consumers tend to make purchases when they believe that the digital platform is reliable, safe, and transparent (Gefen et al., 2003). In the context of the Tiket Pendakian application, trust is formed through the credibility of information, consistency of service, and reputation of the platform. Based on this premise, the following hypothesis is formulated: Prior research findings reinforce the assumptions (Belanger et al., 2002), (Roca et al., 2009), (Srinivasan et al., 2002).

H1: Trust has a positive and significant influence on the decision to purchase climbing tickets through the Tiket Pencakian application.

2. The Influence of Security on Purchasing Decisions

Security is a vital component in digital transactions, especially those concerning the protection of personal data and payment information. Users' perceptions of security greatly influence their confidence in completing online transactions (Soleimani, 2021). Although security is often considered a standard feature, subjective perceptions of its effectiveness continue to influence purchase intentions. Therefore, the hypothesis proposed is: Prior research findings reinforce the assumptions (Belanger et al., 2002), (Roca et al., 2009), (Srinivasan et al., 2002).

H2: Security has a positive and significant influence on ticket purchasing decisions through the Tiket Ascent application.

3. The Influence of E-Service on Purchasing Decisions

E-service (digital service quality) includes features such as responsiveness, ease of use, system reliability, and user interface appeal. Positive user experiences with digital services increase satisfaction and drive purchasing behavior (Parasuraman et al., 2019; Lee et al., 2023). In the context of online mountain climbing ticket booking, responsive and efficient service is essential to ensure user convenience. Therefore, the following hypothesis is formulated: Prior research findings reinforce the assumptions (Belanger et al., 2002), (Roca et al., 2009), (Srinivasan et al., 2002).

H3: Electronic service quality has a positive and significant effect on ticket purchasing decisions through the Tiket Ascent application.

4. The Simultaneous Influence of Trust, Security, and E-Service on Purchasing Decisions

Although each variable has been widely studied independently, research analyzing their combined effects in the specific context of mountain climbing ticket booking applications, especially in Indonesia, is still limited. Simultaneous analysis is needed to test the collective contribution of the three variables to purchasing decisions (Kotler & Keller, 2016). Thus, the proposed hypothesis is: Prior research findings reinforce the assumptions (Belanger et al., 2002), (Roca et al., 2009), (Srinivasan et al., 2002).

H4: Trust, security, and quality of electronic services simultaneously have a positive and significant influence on the decision to purchase tickets through the Tiket Pendakian application.

3. Method

The Tiket Ascent application was selected as the research object because it represents a form of digital innovation in the nature-based tourism sector, particularly in the online ticket reservation service for mountain climbing. This study employed a quantitative approach with an associative research design, aiming to analyze the latent influence between independent and dependent variables, both partially and simultaneously.

The type of data used in this study is primary data obtained directly from respondents, namely users of the Tiket Pendakian application who have made ticket purchases. Data collection was conducted through a survey method by distributing online questionnaires to selected respondents using purposive sampling. The number of samples analyzed in this study was 100 respondents.

The research instrument consisted of a closed-ended questionnaire using a five-point Likert scale, containing statements based on the research variable constructs: trust, security, e-service, and purchase decision. The questionnaire was developed by adapting indicators from previous relevant studies and adjusted to the context of the application being studied.

In this study, all four variables were measured based on respondents perceptions of their experiences using the application. The trust variable was measured through indicators such as user experience and information transparency. The security variable includes privacy assurance and transaction security. The e-service variable was assessed through efficiency and accessibility, payment confirmation, and responsiveness. Meanwhile, the purchase decision variable reflected service quality and user satisfaction level.

As an analytical tool, this study used multiple linear regression to examine the partial and simultaneous effects of the three independent variables on the dependent variable, namely the purchase decision. Prior to conducting regression analysis, classical assumption tests including normality, multicollinearity, and heteroscedasticity tests were performed to ensure the validity and reliability of the model.

4. Result

A. Validity Test

Validity testing is conducted to determine whether the questionnaire instrument is able to measure what should be measured. In this study, the number of respondents (N) was 100 people, so the r table value at a significance level of 5% is 0.195. The test results in table 1 show that all items in the variables of trust, security, e-service, and purchasing decisions have a correction item-total correlation value greater than the r table (0.195). This shows that all questionnaire items have a fairly strong correlation to the total score of their variables, so it can be concluded that all items are valid and suitable for use in further analysis.

Table 1. Validity Test Results

Variables	Item	Corrected item-total correlation (r count)	r table	Information
Trust (X1)	X1.1	0.870	0.195	Valid
	X1.2	0.827	0.195	Valid
	X1.3	0.789	0.195	Valid
Security (X2)	X2.1	0.842	0.195	Valid
	X2.2	0.776	0.195	Valid
	X2.3	0.771	0.195	Valid
E-Service (X3)	X3.1	0.772	0.195	Valid
	X3.2	0.670	0.195	Valid
	X3.3	0.804	0.195	Valid
	X3.4	0.809	0.195	Valid
	X3.5	0.718	0.195	Valid
	X3.6	0.739	0.195	Valid
Purchase Decision (Y)	Y1.1	0.701	0.195	Valid
	Y1.2	0.677	0.195	Valid
	Y1.3	0.753	0.195	Valid
	Y1.4	0.822	0.195	Valid
	Y1.5	0.687	0.195	Valid

B. Reliability Test

Reliability testing was conducted to assess the internal consistency of the research instrument. Based on the results of the analysis in table 2, all variables showed a Cronbach's Alpha value above 0.60 which met the minimum threshold to indicate that an instrument is considered reliable (Ghozali, 2018). Thus, all questionnaire items were considered consistent and suitable for use in this study.

Table 2. Reliability Test Results

Variable	Reliability Coefficients	Alpha	Information
X1	3	0.767	Reliable
X2	3	0.71	Reliable
X3	6	0.846	Reliable
Y	5	0.779	Reliable

C. Classical Assumption Test

1. Normality Test

The normality test was conducted to determine whether the residuals of the regression model were normally distributed. Based on the Kolmogorov–Smirnov test, the significance value obtained was 0.115, as shown in Table 3. Since this value is greater than the 0.05 threshold, it can be concluded that the data is normally distributed, thus fulfilling the normality assumption required for linear regression analysis.

Table 3. The Kolmogorov–Smirnov test Results

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		100
Normal Parameters[a,b]	Mean	0
	Std. Deviation	1.42565789
Most Extreme Differences	Absolute	0.08
	Positive	0.074
	Negative	-0.08
Test Statistic		0.08
Asymp. Sig. (2-tailed)		.115[c]

2. Multicollinearity Test

The multicollinearity test was conducted to assess whether there is a high correlation among the independent variables. As presented in Table 4, the results show that all variables have Variance Inflation Factor (VIF) values below 10 and tolerance values above 0.10, which indicates the absence of multicollinearity. Therefore, each independent variable can be interpreted independently within the regression model.

Table 4. Multicollinearity Test Results

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Trust	0.322	3.104
	Security	0.379	2.641
	E-Service	0.309	3.235
a. Dependent Variable: Purchase Decision (Y)			

3. Heteroscedasticity Test

The heteroscedasticity test using the Glejser method shows that all independent variables have significance values above 0.05, as presented in Table 5 (Trust = 0.542, Security = 0.732, E-Service = 0.177). These results indicate that the regression model is free from heteroscedasticity, fulfilling the assumption of constant variance across residuals.

Table 5. Heteroscedasticity Test Results

Model		Coefficients[a] Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.507	1.894		2.907	0.005
	Trust	-0.044	0.072	-0.103	-0.613	0.542
	Security	-0.025	0.073	-0.053	-0.343	0.732
	E-Service	-1.122	0.826	-0.232	-1.359	0.177

a. Dependent Variable: Abs_RES

D. Hypothesis Testing

1. Multiple Linear Regression Test

Based on the results of multiple linear regression analysis, the following equation is obtained:

$$Y = -15.343 + 0.411X_1 + 0.042X_2 + 9.546X_3$$

Where:
X_1 = Trust
X_2 = Security
X_3 = E-Service
Y = Purchase Decision

As shown in Table 6, the constant value of –15.343 indicates that if all independent variables are assumed to be zero, the predicted value of the purchase decision will be negative. However, this condition is theoretical and rarely occurs in real-world contexts, especially on digital service platforms where users are unlikely to engage without a certain level of trust, perceived security, or service quality.

As noted by Frost (2020), negative constants in regression models are common and usually result from high average values of the independent variables. These constants primarily serve to position the regression line accurately across the data and do not always require practical interpretation.

Therefore, negative constants do not affect the validity of the model. The focus remains on the regression coefficients and their significance levels, which are the main indicators of the influence of each independent variable on the dependent variable.

Table 6. Multiple Linear Regression Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
1	B	Std. Error	Beta		
	(Constant)	-15.343	2.959		-5.186
	Trust	0.411	0.113	0.297	3.644
	Security	0.042	0.114	0.027	0.364
	E-Service	9.546	1.29	0.615	7.401

a. Dependent Variable: : Purchase Decision

2. Partial Test

A t-test was conducted to determine the partial effect of each independent variable on purchase decisions. As shown in Table 7, the trust and e-service variables have a significance value of 0.000, indicating a statistically significant effect on purchase decisions. In contrast, the security variable has a significance value of 0.717, which is greater than 0.05, indicating no significant effect. These results imply that users' purchase decisions are greatly influenced by their trust in the application and the quality of e-services, while perceived security is not a determining factor in this context. This finding is in line with research by Soleimani (2021), which shows that users often perceive digital platforms as inherently secure, thereby reducing the direct influence of security on behavioral intentions. Once basic security expectations are met, users tend to shift their attention to the service experience and trust in the platform.

Table 7. Partial Analysis Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-15.343	2.959		-5.186	0.000
	Trust	0.411	0.113	0.297	3.644	0.000
	Security	0.042	0.114	0.027	0.364	0.717
	E-Service	9.546	1.29	0.615	7.401	0.000

a. Dependent Variable: : Purchase Decision

3. Simultaneous Test

The F-test was used to assess whether the independent variables Trust (X_1), Security (X_2), and E-Service (X_3) simultaneously influence the dependent variable, Purchase Decision (Y). Based on the results presented in Table 8, the analysis yielded an F-value of 124.009 with a significance level of 0.000, which is below the 0.05 threshold. Therefore, the null hypothesis (H_0), which states that there is no simultaneous effect, is rejected, and the alternative hypothesis (H_1) is accepted. This confirms that trust, security, and e-service quality collectively have a significant influence on consumers' decisions to purchase climbing tickets through the Tiket Pendikian application. Prior research findings reinforce the assumptions (Belanger et al., 2002), (Roca et al., 2009), (Srinivasan et al., 2002).

Table 8. Simultaneous Analysis Test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	779.772	3	259.924	124.009	.000[b]
	Residual	201.218	96	2.096		
	Total	980.99	99			

a. Dependent Variable: Purchase Decision

b. Predictors: (Constant), E-Service, Security, Trust

4. Determination Test (R^2)

The determination coefficient (R^2) test was conducted to measure the extent to which the variation of the dependent variable can be explained by the independent variables in the regression model. As shown in Table 9, the R^2 value is 0.795, indicating that 79.5% of the variation in purchasing decisions can be explained by trust, security, and quality of e-services. The remaining 20.5% is the deviation or variation explained by other factors outside the model. These results indicate that the regression model has strong explanatory power in capturing the influence of independent variables on the decision to Buy Tickets.

Table 9. Determination Analysis Test

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.892[a]	.795	.788	1.44776

a. Predictors: (Constant), E-Service, Security, Trust

5. Discussion

The results of this study confirm that trust and e-service quality have a significant and positive influence on users' purchasing decisions when using the Tiket Pendakian application, while security does not show a significant effect. These findings are partially consistent with the research hypothesis, where H_1 (trust) and H_3 (e-service) are supported, but H_2 (security) is not. Prior research supports this result, indicating that digital purchasing behavior is strongly driven by trust and digital service satisfaction (Guo et al, 2023; Martio et al, 2023).

The significant influence of trust reinforces earlier studies such as Gefen et al. (2003) and Chen et al. (2020), as well as more recent findings by Hassan, Abdelraouf, and El-Shihy (2025), who showed that trust significantly boosts customer satisfaction and loyalty, particularly when combined with personalized services. In digital transactions involving sensitive data, user confidence in the platform's reliability and transparency strongly influences their intention to buy. Similarly, Alharbi et al, (2021) confirmed that trust mediates the relationship between e-service quality and e-loyalty, emphasizing its central role in shaping consistent user behavior.

Likewise, the strong influence of e-service quality is in line with Parasuraman et al. (2019), Lee et al. (2023), and Martio et al. (2023), who emphasized that system responsiveness, accessibility, and ease of use are critical to shaping user satisfaction and behavioral intentions, especially in mobile commerce and tourism applications.

Interestingly, the insignificance of security as an individual factor suggests a shift in user expectations. Today's users may perceive security as a basic standard rather than a competitive advantage. This is echoed by Soleimani (2021), who stated that once minimum security expectations are fulfilled, users prioritize service quality, usability, and trust. This may explain why security in this study did not significantly influence purchasing decisions.

Furthermore, the F-test results show that all three independent variables simultaneously influence purchasing decisions significantly, and the R^2 value of 0.795 confirms that the model has a strong explanatory power, accounting for 79.5% of the variance in the decision to purchase.

In conclusion, this study highlights that building trust and enhancing digital service quality are more influential in shaping purchasing decisions than emphasizing security alone supporting the idea that security is now a hygiene factor in digital tourism platforms.

6. Conclusion

This study concludes that trust and e-service quality have a significant positive effect on purchasing decisions through the Tiket Pencakian application, while security does not show a significant influence. These results confirm that users prioritize service efficiency and platform credibility when making digital purchases, with security perceived as a basic expectation rather than a primary factor. The regression model demonstrated strong explanatory power, with 79.5% of the variance in purchasing decisions explained by the three independent variables. Future research could explore other contributing factors such as user experience design, price transparency, and social influence, as well as applying the model in different types of tourism or digital service platforms for broader validation.

This study has several limitations. First, it only focused on users of the Tiket Pendakian application in Indonesia, which may not reflect user behaviors in other regions or similar digital tourism platforms. Second, the study employed a cross-sectional design, so it cannot capture changes in user perceptions over time. Future studies may consider longitudinal methods or a comparative approach involving different applications or regions.

From a practical perspective, the results highlight the critical role of trust and service quality in influencing user decisions. Application developers are encouraged to prioritize user-centric features such as responsive customer support, clear information, and intuitive interface design. Additionally, while security remains essential, it should be treated as a baseline requirement, allowing developers to focus more on enhancing service personalization and trust-building mechanisms.

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