

The Effect of Application Quality on Traveloka's Customer Loyalty Through Customer Trust

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ABSTRACT

The rapid growth of mobile-based travel services has intensified competition among digital travel platforms, making application quality and customer trust important for customer loyalty. This study examines the effect of Application Quality on Customer Loyalty through Customer Trust among Traveloka users in Indonesia. A quantitative cross-sectional survey involved 400 respondents selected through purposive sampling. Data were collected using a structured questionnaire and analyzed with Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4. The measurement model met reliability and validity criteria, with Composite Reliability values of 0.815–0.835 and Average Variance Extracted (AVE) values of 0.609–0.647. The results show that Application Quality positively and significantly affects Customer Trust ($\beta = 0.619$, $t = 17.888$, $p < 0.001$), while Customer Trust positively and significantly affects Customer Loyalty ($\beta = 0.582$, $t = 14.601$, $p < 0.001$). Customer Trust also significantly mediates the relationship between Application Quality and Customer Loyalty ($\beta = 0.361$, $t = 10.498$, $p < 0.001$). The findings highlight Customer Trust as an important mechanism linking Application Quality to Customer Loyalty and provide practical implications for improving customer retention and sustainable competitive advantage.

ABSTRAK

Pertumbuhan layanan perjalanan berbasis aplikasi telah meningkatkan persaingan antarplatform perjalanan digital, sehingga kualitas aplikasi dan kepercayaan pelanggan menjadi penting dalam membangun loyalitas pelanggan. Penelitian ini menganalisis pengaruh Application Quality terhadap Customer Loyalty melalui Customer Trust pada pengguna Traveloka di Indonesia. Penelitian menggunakan survei kuantitatif cross-sectional terhadap 400 responden yang dipilih melalui purposive sampling. Data dikumpulkan menggunakan kuesioner terstruktur dan dianalisis dengan Partial Least Squares Structural Equation Modeling (PLS-SEM) menggunakan SmartPLS 4. Model pengukuran memenuhi kriteria reliabilitas dan validitas, dengan nilai Composite Reliability sebesar 0,815–0,835 dan Average Variance Extracted (AVE) sebesar 0,609–0,647. Hasil penelitian menunjukkan bahwa Application Quality berpengaruh positif dan signifikan terhadap Customer Trust ($\beta = 0,619$; $t = 17,888$; $p < 0,001$), sedangkan Customer Trust berpengaruh positif dan signifikan terhadap Customer Loyalty ($\beta = 0,582$; $t = 14,601$; $p < 0,001$). Customer Trust juga memediasi secara signifikan hubungan Application Quality dan Customer Loyalty ($\beta = 0,361$; $t = 10,498$; $p < 0,001$). Temuan ini menegaskan bahwa Customer Trust merupakan mekanisme penting yang menghubungkan Application Quality dengan Customer Loyalty serta memberikan implikasi praktis bagi peningkatan retensi pelanggan dan keunggulan kompetitif berkelanjutan.



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1. INTRODUCTION

The rapid growth of digital technology has fundamentally transformed consumer behavior, particularly in the context of online shopping (Ismail et al., 2026), including the tourism industry, by changing the way consumers search for information, compare alternatives, and purchase travel-related services. Technological

advancements have become a major driving force behind global economic development, with many countries depending on the technology sector as the primary catalyst for economic growth. Online travel agencies (OTAs) have become one of the fastest-growing segments of the digital economy because they provide integrated services, including airline tickets, hotel reservations, transportation, tourist attractions, and travel packages, through a single mobile application. The increasing adoption of smartphones and digital payment systems has accelerated consumers' reliance on OTA applications, making service quality and user experience critical determinants of business competitiveness. In contemporary digital services, particularly mobile-based online travel agencies (OTAs), mobile applications have become the primary interface through which users interact with the digital platforms. Therefore, this study conceptualizes application quality as the quality of a mobile digital platform and extends the established website quality framework to the mobile application environment.

Indonesia represents one of the largest digital markets in Southeast Asia, supported by rapid internet penetration and increasing digital literacy. According to DataReportal (Kemp, 2023), Indonesia had more than 212 million internet users in 2023, representing approximately 77% of the total population. This digital transformation has significantly influenced consumer behavior, particularly in the tourism sector, where customers increasingly prefer to book travel services through mobile applications because they offer convenience, flexibility, and faster transaction processes. Following the recovery of the tourism industry after the COVID-19 pandemic, the demand for online travel services has increased substantially. Global airline passenger traffic in 2024 grew by 10.4% compared to the previous year and exceeded pre-pandemic levels, indicating a strong recovery in international and domestic travel activities (IATA, 2025). This growth presents significant business opportunities, while simultaneously intensifying competition among OTA providers.

The decline in COVID-19 cases has led the Indonesian government to ease travel policies, including air transportation. This has, of course, encouraged an increase in airplane passengers, especially domestic ones. Statistics Indonesia (Widi, 2023) recorded 52.56 million air passengers in Indonesia in 2022. This number surged by 74.8% compared to the previous year, which was 30.07 million passengers (Widi, 2023 Komalasari, 2023). Regarding trains, from January to December 2022, there was an 85.4% increase in the number of train passengers compared to 2021 (Komalasari, 2023). This can become a significant opportunity for various companies offering flight ticket booking services to gain more customers.

Among various OTA platforms operating in Indonesia, Traveloka remains the market leader. A survey conducted by Populix reported that 67.5% of Indonesian consumers preferred Traveloka over other competing platforms, including Tiket.com, Agoda, Booking.com, and Airbnb (Angelia, 2022 Annur, 2022). Despite its dominant market position, maintaining customer loyalty has become increasingly challenging because consumers can easily switch to competing platforms that offer similar products, lower prices, or better digital experiences. In the world of travel apps like Traveloka, competition is no longer just focused on price and features but also involves striving to build and maintain customer loyalty through application quality and trust.

According to Oliver (1999), customer loyalty can be seen as a deep commitment to consistently repurchasing (Budianto et al., 2026) the preferred service from the same service provider despite situational influences and marketing efforts by other competitors (Nasution et al., 2022). Customer loyalty has become one of the most valuable strategic assets for digital platform businesses because loyal customers are more likely to repurchase, recommend the platform to others, and maintain long-term relationships with service providers. Previous studies have consistently demonstrated that customer loyalty contributes to sustainable business performance (Bakhshandeh et al., 2023) by reducing customer acquisition costs and increasing customer lifetime value.

In the digital business environment, brand trust is a critical challenge for businesses (Xuan et al., 2022), and customer trust plays a particularly important role in online transactions because tourism services involve financial payments, personal information disclosure, and uncertainty regarding service delivery. (Yoon, 2002) It has been realized that trust is a leading concern in financial activities, promoting the bond between brands and customers (Cheah et al., 2022 Božič et al., 2020). Unlike conventional transactions, customers cannot physically verify travel products before purchasing them. Therefore, they must rely on the credibility and reliability of the digital platform. According to the Commitment-Trust Theory proposed by Morgan and Hunt (Cahaya, 2023), commitment will make them forget about the unpleasant experiences and view the relationship as more valuable; trust serves as the foundation for establishing long-term relationships between companies and customers. When users perceive an application as reliable, secure, and easy to use, they are more likely to develop trust, which subsequently strengthens customer loyalty.



Figure 1. Traveloka App User Review

Despite Traveloka's leading position in the Indonesian OTA market, customer reviews on Google Play indicate several recurring issues related to application performance. Users frequently report system errors, application crashes, slow loading times, inaccurate booking information, delayed customer service responses, and difficulties handling cancellations or schedule changes. These problems negatively affect users' overall experience and may reduce their trust in the platform. As digital consumers increasingly expect seamless and secure online services, failure to maintain consistent application quality may encourage customers to migrate to competing OTA platforms. A high-quality application not only improves the user experience but also reduces uncertainty during online transactions, thereby encouraging customers to continue using the platform.

One of the factors that influence Customer loyalty in the travel app business is application quality. Liang and Chen (2009) studied the influence of application quality on customer relationship performance and demonstrated that it can attract repurchase intentions among customers (Hariadi & Sulistiono, 2021). Good application quality, which includes ease of use, accuracy of information, access speed, and transaction security, plays an important role in shaping customer satisfaction and trust, which ultimately impacts customer loyalty towards the travel app. Consequently, many people choose to book airline tickets online because this online reservation system is considered easier, faster, and more time-saving. Traveloka even provides a 'pay later' feature that makes it convenient for users; with this feature, customers do not need to pay immediately to obtain the desired product.

Although previous studies have investigated the relationships among application quality, customer trust, and customer loyalty, several research gaps remain. First, empirical findings regarding the direct effect of application quality on customer loyalty remain inconsistent. Several studies found that website quality has a direct and significant positive effect on customer loyalty (Chaerani, 2025; Albayrak et al., 2019), while other studies reported that the direct effect of website quality is insignificant or relatively weak and that customer trust plays a more important mediating role (Hasan et al., 2026 ; Zahra et al., 2024; Trissetianto et al., 2025). Victor, Jorie and Sumarauw (2015) stated that trust does not have a significant effect on loyalty (Nasution et al., 2022), while (Kurniawan & Tankoma, 2023) found that trust positively and significantly influences customer loyalty.

Previous studies have extensively examined website quality, trust, and loyalty in various e-commerce contexts. However, empirical evidence examining application quality, customer trust, and customer loyalty in the context of mobile-based online travel applications in Indonesia remains limited. Therefore, this study aims to fill this gap by examining the direct effect of application quality on customer loyalty, as well as the mediating role of customer trust in the relationship between application quality and customer loyalty among Traveloka users.

2. THEORETICAL FRAMEWORK AND HYPOTHESES

Application Quality

Application quality refers to users' perceptions of a digital application's quality, performance, and functionality in supporting their interactions and transactions with a service provider. In the context of online travel services, application quality reflects the extent to which the Traveloka application enables users to access services efficiently, complete transactions reliably, and interact with the platform securely and conveniently. Aslam et al. (2020) describe digital platform quality as users' evaluations of aspects such as

ease of use, usefulness, attractiveness, and accessibility (Wicaksono & Ishak, 2022). These aspects are relevant to mobile applications because users evaluate an application's quality based on how easily and effectively it supports their activities. Application quality is also closely related to system quality within the Information Systems Success Model proposed by DeLone and McLean. From this perspective, the quality of an information system influences users' perceptions and subsequent behavioral responses. Hamilton and Chervany identified five dimensions for measuring application quality: 1) ease of use, 2) response time, 3) reliability, 4) flexibility, and 5) security (Elmeida et al., 2023). These dimensions reflect the extent to which the application is easy to operate, responds efficiently, performs reliably, provides flexibility in transactions, and protects users during digital transactions.

High application quality enables users to navigate the platform efficiently, access accurate information, complete transactions securely, and enjoy responsive system performance. Ease of navigation, transaction security, system responsiveness, and reliable application performance can enhance users' perceptions of professionalism and reliability, thereby supporting positive behavioral responses (Ismail et al., 2026). In the context of Traveloka, these characteristics are particularly important because users depend on the application to search for travel information, make reservations, complete payments, and manage travel-related transactions.

Previous studies have consistently demonstrated that application quality plays an important role in shaping customer behavior patterns. Wardiansyah et al. (2025) found that perceived ease of use and perceived usefulness significantly influence purchasing decisions when supported by a reliable digital platform. Likewise, Fachry et al. (2025) reported that high application quality improves user satisfaction and facilitates the purchasing process, ultimately contributing to stronger customer loyalty. Positive experiences with a digital platform encourage users to revisit and continue using the platform over time (Tsao et al., 2016). In the context of online travel services, continued use and repeat transactions are important indicators of customer loyalty (Hosseini et al., 2024).

Application quality can also serve as an important antecedent of customer trust, beyond its influence on customer behavior. Parasuraman et al. argued that application quality, reflected in information accuracy, ease of use, visual appeal, system responsiveness, and technical reliability, plays a crucial role in shaping users' initial impressions and long-term attitudes toward a brand, while digital trust reduces the perceived risks and uncertainties associated with online transactions (Trissetianto et al., 2025). Customers who perceive an application as reliable, secure, and easy to use are more likely to believe that the service provider is competent, honest, and capable of fulfilling its promises (Hasan et al., 2026). Wilson (Hosseini et al., 2024) emphasized that perceived quality can reduce uncertainty and perceived risk in online transactions. Therefore, improving application quality is expected to enhance customer trust and strengthen customer loyalty.

H1: Application quality has a positive and significant effect on customer trust.

H2: Application quality has a positive and significant effect on customer loyalty.

Customer Trust

Customer trust is widely recognized as one of the most important determinants of online consumer behavior because it reduces uncertainty and encourages customers to engage in online transactions (Hosseini et al., 2024). In the context of e-commerce, customer trust refers to consumers' confidence in digital platforms, service providers, and transaction processes, particularly in environments where direct interaction between buyers and sellers is limited (Ismail et al., 2026 Ilhamalimy & Ali, 2021). Similarly, Ba and Pavlou (2002) defined trust as customers' belief that service providers will fulfill their obligations and conduct transactions according to customers' expectations despite the uncertainty inherent in online environments (A. Hidayat et al., 2021). Likewise, Prabowo (2018) described customer trust as consumers' confidence that a company or brand will consistently deliver products and services that meet or exceed their expectations (Tiara et al., 2026). Customer trust plays a crucial role in establishing long-term relationships between companies and consumers. Customers who trust a company are more willing to share personal information, continue using its products or services, recommend the company to others, and remain loyal even when alternative providers are available (Høgevoid et al., 2021; Hae et al., 2026). Furthermore, previous studies have demonstrated that trust positively influences customer commitment, satisfaction, and loyalty because customers perceive the company as reliable, honest, and capable of protecting their interests (Amiruddin et al., 2023 Cahaya, 2023). Therefore, building customer trust requires organizations to demonstrate transparency, honesty, consistency, and competence in delivering their services (Muflih et al., 2024 Xuan et

al., 2022). According to Mayer et al. (1995), further supported by McKnight et al. (2002) and Colquitt et al. (2007), customer trust is commonly conceptualized through three fundamental dimensions: ability, integrity, and benevolence (Hallikainen & Laukkanen, 2021). Ability refers to customers' perceptions of a company's competence and capability to deliver products or services effectively. Integrity reflects the belief that the company consistently acts honestly, fulfills its promises, and adheres to ethical principles. Meanwhile, benevolence represents customers' perceptions that the company genuinely cares about their interests beyond its own commercial objectives. These three dimensions collectively reduce perceived risks and strengthen customers' confidence in engaging in long-term relationships with digital service providers.

H3: Customer trust positively and significantly affects customer loyalty.

H4: Customer trust significantly mediates the relationship between application quality and customer loyalty.

Customer Loyalty

Customer loyalty is a fundamental concept in marketing that reflects customers' commitment to maintaining a long-term relationship with a company through continuous purchasing behavior. According to Oliver (1999), customer loyalty refers to a deeply held commitment to repurchase or consistently support a preferred product or service in the future, despite situational influences and marketing efforts from competitors (Amiruddin et al., 2023). Similarly, Morgeson et al. (2023) define customer loyalty as customers' intention to continue purchasing products or services from the same company while remaining committed even when facing reasonable price changes or competing alternatives. Consequently, customer loyalty represents both a behavioral intention and an attitudinal commitment toward a company's products or services (M. A. Hidayat et al., 2024). Customer loyalty provides significant benefits to organizations because loyal customers are more likely to make repeat purchases, recommend the company to others, and maintain long-term relationships, ultimately contributing to sustainable business growth and profitability (Eghbali et al., 2021; Falahatgar et al., 2021). Previous studies have also shown that loyal customers tend to express positive attitudes toward a brand by increasing their purchase frequency, recommending products or services to potential customers, and sharing favorable experiences through positive word-of-mouth communication (Suhartanto et al., 2020; Fusva et al., 2020). According to Griffin (2005), customer loyalty can be measured using four key indicators: repeat purchases, purchasing across different product or service categories, positive word-of-mouth recommendations, and resistance to competitors' offers (Marsal et al., 2025).

3. RESEARCH METHOD

This study employed a quantitative cross-sectional survey design to examine the relationships between application quality, customer trust, and customer loyalty among Traveloka users in Indonesia. A quantitative approach was considered appropriate because this study aimed to empirically test the proposed hypotheses using partial least squares structural equation modeling (PLS-SEM). Traveloka reported more than 40 million monthly active users, indicating a large user base for its digital travel platform (Inasis, 2025). Using this reported user base as the population reference, the minimum sample size was calculated using Slovin's formula with a 5% margin of error, resulting in approximately 400 respondents. The sample size was also considered adequate for the PLS-SEM analysis used in this study. A purposive sampling technique was employed to select respondents who had sufficient experience with the Traveloka application. The respondents were required to: (1) be at least 17 years old; (2) have installed and used the Traveloka application on a smartphone; (3) have completed at least two transactions through Traveloka, including airline tickets, hotel reservations, transportation services, or other travel-related products; and (4) voluntarily agree to participate in the survey. The Android-specific requirement was removed to include both Android and iOS users and to provide a broader representation of Traveloka application users in Indonesia.

Primary data were collected using an online questionnaire distributed via Google Forms between January and March 2025. The measurement items were adapted from previously validated studies and modified to fit the online travel agency (OTA) context. Application Quality was operationalized through five measurement dimensions – ease of use, response time, reliability, flexibility, and security – represented by seven questionnaire items (APQ1–APQ7). Customer Trust was measured through three dimensions – Ability, Integrity, and Benevolence – represented by seven items (CST1–CST7), while Customer Loyalty was measured through four dimensions – repeat purchase, cross-buying behavior, positive word-of-mouth, and resistance to competitors' offers – represented by five items (CSL1–CSL5). The dimensions were represented by one or more questionnaire items, depending on their respective measurement characteristics. Thus, APQ1–APQ7, CST1–CST7, and CSL1–CSL5 represent measurement items for their respective constructs.

rather than second-order constructs. All items were assessed using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Data were analyzed using SmartPLS 4 following the two-stage PLS-SEM procedure recommended by (Hair et al., 2022). The measurement model (outer model) was evaluated using outer loadings, Cronbach's Alpha, Composite Reliability (CR), rho_A, Average Variance Extracted (AVE), Cross Loadings, the Fornell–Larcker criterion, and the Heterotrait–Monotrait Ratio (HTMT). The structural model (inner model) was assessed through path coefficients, coefficients of determination (R^2), effect size (f^2), and predictive relevance (Q^2). Hypothesis testing, including the mediating effect of customer trust, was performed using the bootstrapping procedure. The proposed hypotheses were supported when the t-statistic exceeded 1.96 and the p-value was less than 0.05.

4. DATA ANALYSIS AND DISCUSSION

Respondent Characteristics

The researcher distributed questionnaires to 400 Traveloka app users in Indonesia. The following are the respondents' characteristic data:

Table 1. Characteristics of Respondent

No.	Characteristics	Amount	Percentage
1	Gender		
	Male	151	37,75%
	Female	249	62,25%
2	Age		
	15-20 years	91	22,75%
	21-30 years	243	60,75%
	31-40 years	39	9,75%
	41-50 years	21	5,25%
	> 50 years	6	1,5%
3	Job		
	Student	232	58%
	Entrepreneur	28	7%
	Employee	27	6,75%
	Others	113	28,25%
4	Purchase Frequency		
	2-10	357	89,25%
	11-20	35	8,75%
	21-30	6	1,5%
	> 30	2	0,5%
5	Residence		
	Java Island	297	74,25%
	Sumatra	95	23,75%
	Sulawesi	7	1,75%
	Lombok	1	0,25%

Source: primary data (2025)

As shown in Table 1, most respondents were female (62.25%), while 37.75% were male. In terms of age, most respondents were between 21 and 30 years old (60.75%), followed by those aged 15–20 years (22.75%), indicating that the sample was predominantly composed of young adults who are generally more familiar with digital technologies and mobile apps. Regarding occupation, students constituted the largest group (58.00%), followed by respondents in other occupations (28.25%), entrepreneurs (7.00%), and employees (6.75%). This distribution suggests that the Traveloka application is widely used by younger and digitally active consumers. Regarding usage experience, most respondents (89.25%) reported having made 2–10 transactions through the Traveloka application, indicating that they possessed sufficient experience to evaluate the platform's quality, trustworthiness, and loyalty. Finally, most respondents resided on Java Island (74.25%), followed by Sumatra (23.75%), while respondents from Sulawesi and Lombok represented only a small proportion of the sample. This geographical distribution reflects the concentration of digital

service users in Indonesia's major population centers.

Measurement Model

Table 2. Loading Factor

Dimmension	Item	Loading Factor
Ease of Use	APQ1	0.583
Ease of Use	APQ2	0.693
Response Time	APQ3	0.582
Reliability	APQ4	0.683
Reliability	APQ5	0.679
Flexibility	APQ6	0.632
Security	APQ7	0.677
Ability	CST1	0.553
Ability	CST2	0.652
Integrity	CST3	0.662
Integrity	CST4	0.636
Benevolence	CST5	0.623
Benevolence	CST6	0.602
Benevolence	CST7	0.625
Repeat Purchase	CSL1	0.630
Cross-Buying Behavior	CSL2	0.598
Positive Word-of-Mouth	CSL3	0.710
Positive Word-of-Mouth	CSL4	0.754
Resistance to Competitors' Offers	CSL5	0.723

The measurement model was evaluated by examining the outer loading values to assess the convergent validity of each indicator in measuring its corresponding latent construct. According to Fornell and Larcker (1981), convergent validity is established when the Average Variance Extracted (AVE) exceeds 0.50 and indicator loadings are preferably above 0.70 (Duong et al., 2025). However, (Hair et al., 2022) argue that indicators with loadings between 0.40 and 0.708 may be retained, particularly in social science research, provided that the Composite Reliability and AVE satisfy the recommended thresholds and the indicators remain theoretically relevant.

The Application Quality construct was measured using seven questionnaire items (APQ1–APQ7), which operationalized five measurement dimensions: ease of use, response time, reliability, flexibility, and security. The dimensions were represented by one or more questionnaire items depending on the nature of each dimension. Therefore, APQ1–APQ7 should be understood as measurement items rather than separate higher-order constructs. The outer loading values for Application Quality ranged from 0.582 to 0.693, with APQ2 showing the highest loading (0.693) and APQ3 the lowest (0.582). Although these values are below the preferred threshold of 0.708, Hair et al. (2022) note that indicators with loadings between 0.40 and 0.708 may be retained when removing them does not improve the construct's reliability or convergent validity and when the indicators remain theoretically relevant. In this study, all seven items were retained because the Application Quality construct demonstrated satisfactory composite reliability and AVE values.

Construct Reliability and Validity

Hair et al., (2022) The average variance extracted (AVE) and the composite reliability (CR) are above the acceptable levels of 0.50 and 0.70, respectively (Venkatakrishnan et al., 2022). According to (Hair et al., 2022), Cronbach's alpha and composite reliability values above 0.70 indicate satisfactory internal consistency. The results indicate that all the constructs satisfy the recommended thresholds for internal consistency reliability. Cronbach's alpha values ranged from 0.716 to 0.769, rho_A values ranged from 0.711 to 0.771, and composite reliability values ranged from 0.815 to 0.835, all exceeding the minimum criterion of 0.70 recommended by (Hair et al., 2022). These findings demonstrate that the measurement items consistently measure their

respective latent constructs. Regarding convergent validity, all constructs obtained AVE values above the recommended threshold of 0.50. Specifically, Customer Loyalty achieved the highest AVE value (0.547), followed by Application Quality (0.542) and Customer Trust (0.538). These results indicate that each construct explains more than 50% of the variance of its indicators, confirming satisfactory convergent validity. Consequently, the measurement model fulfills the reliability and convergent validity requirements and is appropriate for further structural model evaluation.

Table 3. Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Customer Loyalty	0.716	0.711	0.815	0.547
Customer Trust	0.736	0.737	0.816	0.538
Application Quality	0.769	0.771	0.835	0.542

Discriminant Validity

Discriminant validity was evaluated using the Fornell-Larcker criterion. According to (Hair et al., 2022), discriminant validity is established when the square root of the AVE of each construct is greater than its correlations with other constructs, indicating that each construct shares more variance with its own indicators than with other constructs.

Table 4. Discriminant Validity

	Customer Loyalty	Customer Trust	Application Quality
Customer Loyalty	0.755		
Customer Trust	0.623	0.733	
Application Quality	0.647	0.649	0.736

The results demonstrate that the square root of the AVE for each construct exceeds its correlation with the remaining constructs. Specifically, customer loyalty has a square root AVE of 0.755, which is higher than its correlation with customer trust (0.623) and application quality (0.647). Likewise, customer trust recorded a square root AVE of 0.733, exceeding its correlation with application quality (0.649). Similarly, application quality achieved a square root AVE of 0.736, which was greater than its correlations with both customer trust (0.649) and customer loyalty (0.647). These findings confirm that each construct is empirically distinct from the others, thereby satisfying the discriminant validity criterion recommended by (Hair et al., 2022). Therefore, the latent constructs included in the model measure different theoretical concepts and do not substantially overlap.

Structural Model

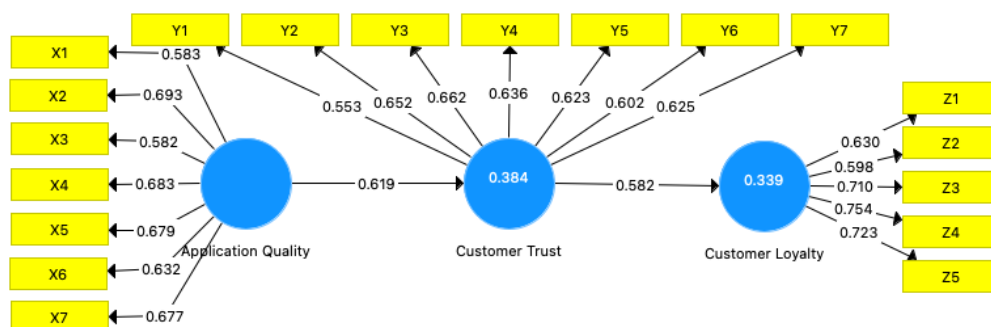


Figure 2. Structural Model

After confirming that the measurement model met the reliability and validity requirements, the structural model (inner model) was evaluated to examine the predictive capability of the proposed model and test the research hypotheses. According to (Hair et al., 2022), the structural model is assessed by examining the coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), model fit indices, and the significance of the structural relationships through bootstrapping.

Coefficient of Determination (R^2)

Table 5. Coefficient of Determination (R^2)

	R Square	R Square Adjusted
Customer Loyalty	0.339	0.337
Customer Trust	0.384	0.382

The results indicate that customer trust has an R^2 value of 0.384, implying that 38.4% of the variance in customer trust is explained by application quality, while the remaining 61.6% is influenced by other variables not included in the model. Customer loyalty obtained an R^2 value of 0.339, indicating that 33.9% of its variance is explained by customer trust, whereas 66.1% is attributable to factors outside the proposed model. Based on the guidelines of (Hair et al., 2022), both R^2 values fall within the moderate explanatory power category, suggesting that the proposed model has an acceptable ability to explain customer trust and customer loyalty in the context of Traveloka users.

Hypothesis Testing

Table 6. Hypothesis Testing Result

The relationships between constructs	Effect	f^2	β	t-value	p-value	Decision
Application Quality $\rightarrow$ Customer Trust	Direct	0.622	0.619	17.888	<0.001	Supported
Customer Trust $\rightarrow$ Customer Loyalty	Direct	0.513	0.582	14.601	<0.001	Supported
Application Quality $\rightarrow$ Customer Trust $\rightarrow$ Customer Loyalty	Indirect	-	0.361	10.498	<0.001	Supported

The structural model was assessed using a bootstrapping procedure to evaluate the significance and practical effects of the hypothesized relationships among the constructs. As shown in Table X, application quality has a positive and significant effect on customer trust ($\beta = 0.619$, $t = 17.888$, $p < 0.001$), thus supporting H1. The effect size was large ($f^2 = 0.622$), indicating that application quality made a substantial contribution to explaining customer trust (Hair et al., 2022).

Customer trust also had a positive and significant effect on customer loyalty ($\beta = 0.582$, $t = 14.601$, $p < 0.001$), supporting H2. The effect size was large ($f^2 = 0.513$), indicating that customer trust has a substantial practical contribution to customer loyalty. This finding suggests that customers who trust the Traveloka platform are more likely to continue using its services, make repeated purchases, and recommend the platform to others. Furthermore, the indirect effect of application quality on customer loyalty through customer trust was positive and significant ($\beta = 0.361$, $t = 10.498$, $p < 0.001$), supporting H3. This finding confirms that customer trust plays a significant mediating role in the relationship between application quality and loyalty. Thus, improvements in application quality can strengthen customer loyalty by increasing customers' trust in the Traveloka platform.

Overall, the structural model demonstrates that application quality is an important antecedent of customer trust, whereas customer trust serves as a key mechanism for strengthening customer loyalty. The large effect sizes of both direct relationships further indicate the practical importance of application quality and customer trust in explaining customer behavior on the Traveloka platform.

The Effect of Application Quality on Customer Loyalty

The SEM-PLS results indicate that application quality has a positive and significant effect on customer trust ($\beta = 0.619$, $t = 17.888$, $p < 0.001$), supporting H1. This finding indicates that users who perceive the Traveloka application as easy to use, responsive in terms of response time, reliable, flexible, and secure tend to develop greater trust in the platform. These application quality characteristics can reduce uncertainty during online transactions and strengthen users' confidence in the service provider. This finding supports the Information Systems Success Model of DeLone and McLean (2003), which identifies system quality as an important determinant of users' perceptions and behavioral outcomes (Elmeida et al., 2023). In the context of digital services, a high-quality application provides efficient system performance, reliable functionality, transaction flexibility, and security, thereby helping users feel more confident when interacting with the platform. Consistent with this perspective, Elmeida et al. (2023) identified ease of use, response time, reliability, flexibility, and security as important dimensions of application quality.

These findings are consistent with those of recent empirical studies. Hallikainen and Laukkanen (2021)

emphasized the importance of digital platform characteristics and reliability in developing customer trust in a platform. Similarly, Hosseini et al. (2024) found that digital platform quality contributes to customer trust by reducing perceived risk and uncertainty in online transactions. Hasan et al. (2026) also reported that digital platform quality positively influences e-trust, indicating that reliable and user-friendly digital platforms can strengthen customers' confidence in online services.

The Effect of Application Quality on Customer Trust

The SEM-PLS results indicate that application quality has a positive and significant effect on customer trust ($\beta = 0.619$, $t = 17.888$, $p < 0.001$). Therefore, H1 was supported. This finding suggests that improvements in ease of use, response time, reliability, flexibility, and security can strengthen customers' trust in the Traveloka app. A high-quality application that is easy to use, responds efficiently, operates reliably, provides transaction flexibility, and ensures security can reduce users' uncertainty and increase their confidence in conducting online transactions.

This finding is consistent with previous studies that showed that digital platform quality contributes to the development of customer trust. Hosseini et al. (2024) found that digital platform quality positively influences customer trust by improving users' perceptions of system performance and reducing perceived risk in online transactions. Similarly, Hasan et al. (2026) reported that users are more likely to trust digital platforms that provide reliable, secure, and user-friendly services. These findings support the view that a well-performing and dependable application can strengthen customers' confidence in the service provider.

The Effect of Customer Trust on Customer Loyalty

The SEM-PLS results indicate that trust has a positive and significant effect on loyalty ($\beta = 0.582$, $t = 14.601$, $p < 0.001$), supporting H2. This finding indicates that customers who trust the Traveloka platform are more likely to continue using its services, make repeat purchases, recommend the platform to others, and remain loyal despite competing online travel applications. Higher customer trust reduces perceived risk and strengthens customers' commitment to maintaining long-term relationships with the platform.

This finding is consistent with the Commitment-Trust Theory, which identifies trust as an important factor in developing and maintaining long-term relationships between customers and service providers. In digital service environments, customers are more likely to remain loyal when they perceive the platform as reliable, honest, and capable of protecting their interests. Therefore, strengthening customer trust can encourage continued usage, repeat transactions, positive word-of-mouth, and resistance to competing alternatives. These findings are supported by previous empirical studies. Amiruddin et al. (2023) reported that customer trust significantly strengthens customer loyalty by increasing customers' commitment to a brand. Similarly, Chaerani (2025) found that e-trust has a positive and significant effect on e-loyalty in digital platforms. These findings reinforce the present result that customer trust is an important determinant of customer loyalty in digital service environments.

The Mediating Role of Customer Trust in the Relationship between Application Quality and Customer Loyalty

The bootstrapping results indicate that customer trust significantly mediates the relationship between application quality and customer loyalty ($\beta = 0.361$, $t = 10.498$, $p < 0.001$), thus supporting H3. This finding indicates that improvements in application quality can indirectly strengthen customer loyalty by increasing customers' trust in the Traveloka platform. Thus, customer trust serves as an important mechanism through which application quality contributes to customer loyalty. In the context of online travel services, application quality is reflected in ease of use, response time, reliability, and flexibility. Improvements in these aspects can reduce customers' uncertainty and perceived risk when interacting with and conducting transactions through the platform. As customer trust increases, users are more likely to continue using Traveloka, make repeat purchases, recommend the platform to others, and remain committed to it despite competing alternatives.

The findings are consistent with those of previous studies. Hasan et al., (2026) found that digital platform quality contributes to customer trust and subsequent behavioral responses. Similarly, Mirza et al., (2021) reported that application quality positively influences customer trust, which subsequently contributes to consumer outcomes. These findings reinforce the role of customer trust as an important mechanism linking digital platform quality with favorable customer outcomes.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

This study concludes that application quality has a positive and significant effect on customer trust, and that customer trust has a positive and significant effect on customer loyalty among Traveloka users in Indonesia. The results also demonstrate that customer trust significantly mediates the relationship between application quality and customer loyalty. These findings indicate that improving application quality can strengthen customer loyalty by building trust in the platform.

This study contributes to the literature by highlighting customer trust as an important mechanism linking application quality and customer loyalty in the online travel agency context. From a managerial perspective, Traveloka should continuously improve the five dimensions of application quality examined in this study: ease of use, response time, reliability, flexibility, and security. Improvements in these dimensions can strengthen users' confidence in the application and encourage continued use, repeat purchases, and positive word-of-mouth.

This study had several limitations. First, the respondents were limited to Traveloka users in Indonesia, which may restrict the generalizability of the findings to other platforms and countries. Second, the cross-sectional design does not capture changes in customer perception and loyalty over time. Third, this study focused on application quality and customer trust in explaining customer loyalty. Future research could incorporate other relevant factors such as customer satisfaction, perceived value, customer experience, brand image, and electronic word-of-mouth. Comparative or longitudinal studies involving different online travel platforms are recommended to provide broader insights into customer loyalty in digital travel services.

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