

Research Article

The Effect of Service Quality on Customer Satisfaction

(A Study of GOT Travel Batam)

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Abstract. This study examines the effect of service quality on customer satisfaction at GOT Travel Batam, an online travel agent operating in Batam, Indonesia. The research addresses the problem of how different dimensions of service quality shape customer satisfaction in a digital travel-service context, where interactions are mediated by online platforms rather than face-to-face encounters. The main objective is to identify which dimensions of service quality significantly influence customer satisfaction and which dimension is the most dominant. A quantitative descriptive–verificative approach was applied using a survey of customers who had used GOT Travel Batam at least once in 2024–2025. A sample of 95 respondents was obtained through purposive sampling and analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM). Service quality was measured through the SERVQUAL dimensions of tangibles, reliability, responsiveness, assurance, and empathy, while customer satisfaction was treated as the dependent variable. The results indicate that reliability and empathy have positive and significant effects on customer satisfaction, whereas tangibles, responsiveness, and assurance do not show significant effects in the proposed model. Empathy emerges as the most dominant dimension, followed by reliability. Overall, the findings suggest that online travel customers place greater emphasis on personal attention and dependable service performance than on physical evidence or mere response speed. In conclusion, service quality remains critical for customer satisfaction in digital OTAs, but the hierarchy of dimensions shifts empathy and reliability become the dominant drivers while tangibles, responsiveness, and assurance lose their direct influence

Keywords: Customer Satisfaction; Digital Tourism; GOT Travel Batam; Online Travel Agent; Service Quality.

1. Introduction

The tourism sector plays an important role in driving regional economic development, especially in destinations with strategic cross-border access such as Batam, which serves as one of Indonesia's main gateways to Singapore and Malaysia (Butarbutar et al., 2021). In recent years, the growth in tourist arrivals to Batam has been accompanied by rapid development of travel-related services, particularly online travel agents (OTAs) that facilitate ticketing, accommodation, tour packages, and transportation booking through digital platforms (Butarbutar et al., 2021). GOT Travel Batam is one of the emerging OTAs operating in this environment, positioning itself as a digital travel service provider that relies heavily on online interactions rather than face-to-face encounters.

Previous studies on service quality and customer satisfaction in tourism and travel have generally employed quantitative survey methods based on the SERVQUAL framework or its variants [(Parasuraman et al., 1988). These studies typically measure service quality through dimensions such as tangibles, reliability, responsiveness, assurance, and empathy, and relate them to outcomes including satisfaction, loyalty, and repurchase intention. Conventional approaches have proven useful in explaining how service quality affects customer satisfaction in traditional travel agencies, hotels, and tour operators, but they often assume substantial physical interaction and do not fully account for the specific characteristics of digital platforms and OTA-based business models. The strengths of these prior methods lie in their ability to quantify the relationship between service quality dimensions and customer

Received: January 03, 2026;

Revised: March 13, 2026;

Accepted: May 08, 2026;

Published: June 22, 2026;

Curr. Ver.: June 22, 2026



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satisfaction, and to provide empirical evidence that can guide managerial decisions in service industries. However, their main weaknesses, particularly when applied to online travel services, include limited attention to digitally mediated interactions, potential changes in the relative importance of service quality dimensions, and a lack of focus on how customers evaluate service quality when most encounters occur via websites, mobile applications, or online chat. As a result, existing models must be re-examined and adapted to capture how customers of OTAs perceive and prioritize service quality in digital contexts.

Against this background, the present study addresses the research problem of how the different dimensions of service quality influence customer satisfaction in a digitally mediated travel-service environment, using GOT Travel Batam as a case. Specifically, the study asks whether the classical SERVQUAL dimensions remain valid predictors of satisfaction when interactions are largely online and which dimensions are most salient from the customer's perspective. This problem is important because misalignment between the service-quality dimensions emphasized by the company and those valued by customers may reduce satisfaction and weaken competitiveness in the increasingly crowded OTA market.

To respond to this problem, the study proposes a quantitative descriptive–verificative approach that adapts the SERVQUAL framework to the OTA context and evaluates it using Partial Least Squares–Structural Equation Modeling (PLS-SEM) (Sarstedt et al., 2021). The proposed approach retains the five core service-quality dimensions tangibles, reliability, responsiveness, assurance, and empathy but operationalizes them with indicators that better reflect digital service encounters, such as online interface appearance, consistency of information, speed of response in online communication, perceived security in digital transactions, and personalized attention delivered through digital channels. The model then examines the extent to which each dimension contributes to overall customer satisfaction with GOT Travel Batam.

The main contributions of this study are threefold. First, it provides empirical evidence on the impact of individual service-quality dimensions on customer satisfaction in an Indonesian OTA setting, a context that has received relatively little attention compared with conventional travel agencies and hotels. Second, it refines the understanding of the SERVQUAL framework by showing how the relative importance of its dimensions can shift when service delivery is mediated by digital platforms, highlighting the central roles of empathy and reliability in online travel services. Third, it offers actionable insights for practitioners by indicating which aspects of service quality should be prioritized to enhance customer satisfaction and strengthen competitive positioning in the OTA market.

The remainder of this paper is organized as follows. Section 2 presents a literature review on service quality, customer satisfaction, and prior studies in travel and online travel contexts, and develops the research hypotheses. Section 3 describes the research methodology, including the research design, sampling procedures, measurement instruments, and data analysis using PLS-SEM. Section 4 reports the empirical results and discusses the findings in light of existing literature. Section 5 provides a comparison and synthesis of the main results relative to prior work. Finally, Section 6 concludes the paper by summarizing the key findings, outlining theoretical and practical implications, and suggesting directions for future research.

2. Literature Review

This section presents the theoretical foundations and state-of-the-art empirical studies related to service quality and customer satisfaction in tourism and online travel services. It first discusses the SERVQUAL framework and its extensions, then reviews prior research on service quality in conventional travel businesses and online travel agents (OTAs), and finally highlights the gaps that motivate the present study.

Service Quality, SERVQUAL, and Customer Satisfaction

Service quality is widely conceptualized as the gap between customer expectations before service consumption and perceptions after the service encounter (Parasuraman et al., 1988). Parasuraman, Zeithaml, and Berry's SERVQUAL framework operationalizes this gap through five core dimensions: tangibles, reliability, responsiveness, assurance, and empathy (Parasuraman et al., 1988). Tangibles refer to physical facilities and appearance; reliability to the ability to perform the promised service dependably and accurately; responsiveness to willingness to help customers and provide prompt service; assurance to employees' knowledge, courtesy, and ability to convey trust; and empathy to individualized attention and understanding of customer needs (Parasuraman et al., 1988). In tourism and hospitality, numerous studies have applied SERVQUAL or its adaptations to measure perceived service quality and examine its link with customer satisfaction, loyalty, and behavioral intentions.

These studies generally confirm that higher perceived service quality leads to higher satisfaction, which in turn fosters positive word of mouth and repurchase intention. For example, research in tour and travel agencies and hotels has shown that dimensions such as reliability and empathy often play key roles in shaping satisfaction, while tangibles and responsiveness can be critical in highly experiential or time-sensitive services (Ardista, 2021; Mecha et al., 2023; Mumtaza & Millanyani, 2023; Putri et al., 2024; Sari et al., 2025; Yuniarso et al., 2021).

With the growth of digital tourism and online platforms, scholars have extended SERVQUAL into e-SERVQUAL or online service quality models by incorporating additional dimensions such as website usability, security, and user-friendliness (Afraah et al., 2025; Jibril & Aruan, 2024; Wan Jasni et al., 2020). Studies on e-service quality in OTAs highlight that accurate information, smooth online transactions, and responsive digital support are essential determinants of perceived quality in online travel booking (Iswahyuniarto, 2023; Kourtesopoulou et al., 2019; Wan Jasni et al., 2020). At the same time, research in Indonesian tourism and digital travel contexts has shown that digital transformation alters how traditional SERVQUAL dimensions operate, for instance by shifting part of "tangibles" into the quality of digital interfaces and online content (Afraah et al., 2025; Iswahyuniarto, 2023; Jibril & Aruan, 2024). These developments indicate that classical service quality theory remains relevant but must be interpreted carefully in online and hybrid settings.

Service Quality in Travel Services and Online Travel Agents

Empirical studies in travel and tour businesses consistently report that service quality has a significant positive effect on customer satisfaction (Ardista, 2021; Fadillah et al., 2025; Maharaj et al., 2025; Mecha et al., 2023; Mumtaza & Millanyani, 2023; Putri et al., 2024; Sari et al., 2025). Ardista (2021) found that improved service quality increased customer satisfaction and loyalty in a conventional travel company in Bogor. Mumtaza and Millanyani (2023) reported similar results for Urbans Travel, where reliability and responsiveness were important drivers of satisfaction. Mecha et al. (2023), showed that reliability was a dominant factor in building customer trust in a tour and travel operator, emphasizing the importance of delivering services accurately and on time. Putri et al. (2024) found that all five SERVQUAL dimensions significantly influenced satisfaction in Lombok Culture Tour and Travel, with interpersonal aspects playing a particularly strong role. These studies, however, were conducted primarily in offline or semi-offline travel settings, where physical facilities, direct interpersonal encounters, and office-based transactions remain central.

In contrast, research on OTAs and online travel services focuses more on digital interfaces and e-service quality (Afraah et al., 2025; Iswahyuniarto, 2023; Jibril & Aruan, 2024; Kourtesopoulou et al., 2019; Su, 2024; Wan Jasni et al., 2020). Studies in international contexts have extended SERVQUAL by adding dimensions such as user-friendliness, website design, and information quality to capture the specific characteristics of online travel booking (Kourtesopoulou et al., 2019; Su, 2024; Wan Jasni et al., 2020). For example, Kourtesopoulou et al. (2019) developed a six-dimension model for online travel booking (tangible, reliability, guarantee, responsiveness, empathy, and user-friendliness) and found that responsiveness and user-friendliness were critical in shaping satisfaction with OTA websites. Recent work in Indonesia has also proposed e-SERVQUAL models for OTAs based on user reviews, identifying responsiveness and information as dimensions that often receive low ratings and require urgent improvement (Afraah et al., 2025; Jibril & Aruan, 2024). Other studies on digital tourism platforms and chatbots indicate that online service quality affects satisfaction, brand image, and loyalty, especially among younger, technology-oriented travelers (Iswahyuniarto, 2023; Wan Jasni et al., 2020). [6][23].

Despite this growing body of research, several gaps remain. First, many studies focus on large, well-established OTA brands at the national or international level, while smaller or emerging OTAs in specific destinations such as GOT Travel Batam have received less empirical attention. Second, although e-SERVQUAL models introduce new dimensions, relatively few studies have systematically examined how the classical SERVQUAL dimensions behave in a localized OTA context and which dimensions remain most salient for customer satisfaction. Third, there is limited evidence on how service quality dimensions perform in the context of cross-border-related destinations like Batam, where customers may have distinct expectations related to reliability and empathy due to the complexity of travel arrangements. The present study addresses these gaps by applying the SERVQUAL framework to analyze the effect of tangibles, reliability, responsiveness, assurance, and empathy on customer satisfaction in GOT Travel Batam, an OTA operating in a strategically located tourism destination. By focusing on a specific Indonesian OTA and employing PLS-SEM to estimate the relative contributions of each dimension, this research provides updated,

context-specific evidence on the role of service quality in digital travel services and contributes to the refinement of service quality theory in online tourism environments.

Research Gap and Hypotheses

The literature on service quality and customer satisfaction in tourism and travel services consistently shows that higher perceived service quality leads to higher satisfaction and, ultimately, to stronger behavioral intentions such as loyalty, repurchase, and positive word of mouth (Fadillah et al., 2025; Gultom et al., 2020; Kotler et al., 2022; Wijaya et al., 2020). Studies in conventional travel agencies and tour operators generally find that all or most SERVQUAL dimensions have significant effects on satisfaction, with some variations in the dominant dimensions depending on the service context (Ardista, 2021; Mecha et al., 2023; Mumtaza & Millanyani, 2023; Putri et al., 2024; Sari et al., 2025; Yuniarso et al., 2021). In parallel, research on e-service quality and OTAs has introduced extended models such as e-SERVQUAL that incorporate digital interface and usability factors, and confirm the importance of responsiveness, information quality, and user-friendliness in online travel booking (Afraah et al., 2025; Iswahyuniarto, 2023; Jibril & Aruan, 2024; Kourtesopoulou et al., 2019; Su, 2024; Wan Jasni et al., 2020).

However, several important gaps remain. First, much of the existing work on OTAs focuses on large or international platforms, while relatively little attention has been given to smaller, destination-based OTAs such as GOT Travel Batam. Second, although e-SERVQUAL models add new digital dimensions, fewer studies systematically test the classical SERVQUAL dimensions in localized OTA contexts to see which ones still matter most for satisfaction and whether any dimensions become less relevant when services are delivered primarily through digital channels. Third, there is limited empirical evidence from cross-border tourism gateways like Batam, where customers may place particular emphasis on reliability and empathy due to higher perceived risks and the complexity of travel logistics. These gaps suggest the need for a context-specific analysis that uses a robust structural modeling approach to estimate the relative influence of each SERVQUAL dimension on customer satisfaction in an OTA operating in Batam.

Based on the SERVQUAL framework (Parasuraman et al., 1988) and the empirical evidence reviewed above (Parasuraman et al., 1988) and the empirical evidence reviewed above (Afraah et al., 2025; Ardista, 2021; Iswahyuniarto, 2023; Jibril & Aruan, 2024; Kourtesopoulou et al., 2019; Mecha et al., 2023; Mumtaza & Millanyani, 2023; Putri et al., 2024; Su, 2024; Wan Jasni et al., 2020), this study proposes five hypotheses that test the impact of each service quality dimension on customer satisfaction with GOT Travel Batam. Tangibles such as the appearance of the digital interface and supporting facilities are expected to positively influence satisfaction, because clear and professional presentation can enhance trust and perceived value (Parasuraman et al., 1988). Reliability, defined as the ability to deliver services accurately and on time, is anticipated to have a significant positive effect, as prior research consistently identifies it as a key determinant of satisfaction in travel services (Mecha et al., 2023; Mumtaza & Millanyani, 2023; Putri et al., 2024). Responsiveness, representing the speed and willingness to help customers, is also expected to positively affect satisfaction, especially in online environments where timely responses are highly valued (Kourtesopoulou et al., 2019; Su, 2024). Assurance, which encompasses perceived safety, competence, and trust in staff, is hypothesized to contribute positively to satisfaction by reducing perceived risk in transactions and travel arrangements (Parasuraman et al., 1988; Yuniarso et al., 2021). Finally, empathy, or personalized attention and understanding of customer needs, is predicted to have a significant positive impact on satisfaction, as interpersonal care remains important even when interactions are mediated digitally (Parasuraman et al., 1988; Putri et al., 2024).

Formally, the research hypotheses are stated as follows: H1: Tangibles have a significant positive effect on customer satisfaction with GOT Travel Batam. H2: Reliability has a significant positive effect on customer satisfaction with GOT Travel Batam. H3: Responsiveness has a significant positive effect on customer satisfaction with GOT Travel Batam. H4: Assurance has a significant positive effect on customer satisfaction with GOT Travel Batam. H5: Empathy has a significant positive effect on customer satisfaction with GOT Travel Batam. These hypotheses are tested using a structural model estimated with PLS-SEM, as described in the next section.

3. Proposed Method

This study applies a quantitative descriptive–verificative method to test the effect of service quality dimensions on customer satisfaction at GOT Travel Batam. The method is implemented through a series of structured steps, starting from research design and sampling

to data collection, measurement, and model estimation using Partial Least Squares–Structural Equation Modeling (PLS-SEM) (Sarstedt et al., 2021; Sugiyono, 2019).

Research Design and Procedure

The research adopts a cross-sectional survey design, in which data are collected once from customers who have used GOT Travel Batam's services. The procedure consists of the following steps: Defining the research problem and formulating five hypotheses regarding the effects of tangibles, reliability, responsiveness, assurance, and empathy on customer satisfaction. Developing a conceptual framework that positions the five service quality dimensions as exogenous variables and customer satisfaction as the endogenous variable. Designing a structured questionnaire based on validated indicators from the SERVQUAL literature and customer satisfaction studies (Kotler et al., 2022). Determining the population and sample size, and selecting respondents using purposive sampling (Arikunto, 2010; Sugiyono, 2019). Distributing the questionnaire online via Google Form to customers who meet the sampling criteria. Screening and cleaning the collected data, including checking for incomplete responses and outliers. Evaluating the measurement model (outer model) to ensure reliability and validity of the constructs. Evaluating the structural model (inner model) to test hypotheses and assess the explanatory power of the proposed method.

This sequence can be visualized in a flow diagram, starting from “Problem and Hypothesis Formulation” and ending with “Conclusion and Implications” after the structural model has been evaluated.

Population, Sample, and Sampling Technique

The population of this study consists of all customers who have used GOT Travel Batam's services at least once during the 2024–2025 period. Company records estimate that there are approximately 2,000 such customers. Because it is not feasible to survey the entire population, the sample size is determined using the Slovin formula with a 10% margin of error, resulting in a minimum sample of 95 respondents (Arikunto, 2010; Sugiyono, 2019).

A purposive sampling technique is employed with the following criteria: (1) respondents have used GOT Travel Batam at least once in the last year, (2) are at least 17 years old and able to evaluate service quality independently, and (3) are willing to complete the questionnaire in full (Arikunto, 2010; Sugiyono, 2019). This approach ensures that the selected sample is relevant to the research objectives and represents active users of GOT Travel Batam.

Data Collection and Measurement Instruments

Data are collected using an online questionnaire distributed via Google Form. The questionnaire is divided into three main sections: (1) screening questions and respondent profile, (2) items measuring service quality dimensions, and (3) items measuring customer satisfaction. All constructs are measured using a five-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (5).

Service quality is measured through 15 indicators that operationalize the five SERVQUAL dimensions: Tangibles: three indicators related to completeness of equipment, cleanliness of materials and staff appearance, and comfort of available facilities. Reliability: two indicators related to accuracy and consistency of service and timeliness. Responsiveness: three indicators related to ability to help customers, provision of information, and speed in delivering services. Assurance: four indicators related to building customer trust, creating a sense of security, staff knowledge, and politeness. Empathy: three indicators related to understanding customer problems, quality of communication, and personal attention.

Customer satisfaction is measured using five indicators adapted from prior marketing and service studies, including loyalty over time, willingness to purchase new products or services, positive word of mouth, willingness to pay more, and providing suggestions for service improvement.

Data Analysis Method

The proposed method uses Partial Least Squares–Structural Equation Modeling (PLS-SEM) for data analysis, implemented with SmartPLS software (Sarstedt et al., 2021). The analysis follows two main stages: Measurement model evaluation (outer model) Convergent validity is assessed using outer loadings and Average Variance Extracted (AVE). Indicators with loadings below the recommended threshold are considered for removal, and AVE values are required to exceed 0.50 for each construct (Sarstedt et al., 2021). Discriminant validity is examined using criteria such as cross-loadings and the Fornell–Larcker criterion to ensure that each construct is empirically distinct from the others (Sarstedt et al., 2021). Reliability is evaluated using Cronbach's alpha and composite reliability, with values above 0.70 indicating acceptable internal consistency (Sarstedt et al., 2021).

Structural model evaluation (inner model)

The coefficient of determination (R-square) is used to assess how much variance in customer satisfaction is explained by the five service quality dimensions. Effect sizes (f-square) are calculated to determine the relative contribution of each dimension to customer satisfaction (Sarstedt et al., 2021). Model fit is evaluated with indices such as the standardized root mean square residual (SRMR) and normed fit index (NFI), as well as additional statistics such as dULS and dG (Sarstedt et al., 2021). Hypothesis testing is conducted using a bootstrapping procedure with a one-tailed significance level of 0.05 to assess the significance of each path coefficient from the service-quality dimensions to customer satisfaction (Sarstedt et al., 2021).

A flow diagram can be constructed to summarize this analytical process, starting from “Data Input into SmartPLS”, followed by “Outer Model Evaluation”, “Inner Model Evaluation”, and ending with “Hypothesis Testing and Interpretation”. This stepwise method ensures that the proposed model is both statistically sound and substantively meaningful for understanding the impact of service quality on customer satisfaction at GOT Travel Batam.

4. Results and Discussion

This section presents the empirical findings of the study and discusses their implications in relation to the proposed hypotheses. It covers the research setting, respondent profile, descriptive statistics, measurement model evaluation, structural model results, and interpretation of the findings in the context of service quality and customer satisfaction at GOT Travel Batam.

Research Setting, Hardware, Software, and Data Sources

The object of this study is GOT Travel Batam, an online travel agent established in 2023 that provides airline and ferry tickets, hotel reservations, and tour packages for domestic and international travel. The company operates in Batam and nearby destinations while also offering travel packages to Singapore, Malaysia, and South Korea, indicating that it functions as a digital travel intermediary with a service model that depends strongly on online interaction and information accuracy. The primary data were obtained from an online questionnaire distributed through Google Form to customers who had used GOT Travel Batam's services during the 2024–2025 period.

Secondary data included company background information, tourism statistics, and supporting literature used to frame the analysis. For data processing, the study used SmartPLS to estimate the PLS-SEM model, while the questionnaire responses were compiled digitally through Google Form and prepared for analysis in a spreadsheet-based environment before being imported into the software. In practical terms, the analysis required a standard computer or laptop capable of running SmartPLS and accessing online survey data, which is consistent with the digital nature of the research design.

Initial Data Analysis

Initial data analysis was conducted through respondent profiling and descriptive statistics to understand the characteristics of the sample and the general condition of the measured variables. The study collected valid responses from 95 customers, which met the minimum sample size determined through the Slovin formula for a population of 2,000 customers (Arikunto, 2010; Sugiyono, 2019)

Tabel 1. Respondent Profile (n=95).

Characteristic	Category	Frequency (%)
Gender	Male	50 (52.6)
	Female	45 (47.4)
Age	17-25 years	43 (45.3)
	26- 35 years	30 (31.6)
	>35 years	22 (23.2)
Frequence of Use	Once	40 (42.1)
	More Than Once	55 (57.9)

.As shown in Table 1, the sample was relatively balanced by gender (52.6% male, 47.4% female) and dominated by younger customers aged 17–35 years, who collectively accounted for 76.9% of respondents. This indicates that most respondents belonged to digitally familiar age groups. Regarding frequency of use, more than half of the respondents (57.9%) had used GOT Travel Batam more than once, indicating that the sample included both first-time and repeat customers and thus captured a broader range of service experiences.

Descriptive analysis also indicates that perceptions of service quality and customer satisfaction were generally positive. The overall mean score for service quality was 3.91, categorized as high, while customer satisfaction had a mean score of 3.80, also categorized as

high. Among the service quality dimensions, assurance had the highest average score (4.06), followed by tangibles (3.97), responsiveness (3.86), empathy (3.80), and reliability (3.73).

Measurement Model Evaluation

The measurement model was evaluated through convergent validity, discriminant validity, and construct reliability to ensure that the indicators measured their intended latent constructs appropriately (Sarstedt et al., 2021). In PLS-SEM, a sound outer model is necessary before interpreting the structural relationships among variables.

Convergent validity was assessed using outer loadings and Average Variance Extracted (AVE). According to the thesis, all constructs achieved AVE values above the minimum threshold of 0.50: assurance = 0.765, empathy = 0.831, customer satisfaction = 0.761, reliability = 0.843, responsiveness = 0.796, and tangibles = 0.801. These results indicate that each construct explained more than half of the variance of its indicators and therefore met the required validity standard (Sarstedt et al., 2021).

Discriminant validity was tested using cross-loadings, where each indicator was expected to load more strongly on its own construct than on other constructs (Sarstedt et al., 2021). The reported cross-loading pattern confirmed that the indicators were empirically distinguishable across constructs, meaning that tangibles, reliability, responsiveness, assurance, empathy, and customer satisfaction measured conceptually separate dimensions. This is important because several service-quality dimensions are conceptually related, and overlap among them could distort the structural results if discriminant validity were not established.

Construct reliability was then assessed using Cronbach's alpha and composite reliability (Sarstedt et al., 2021). The thesis states that all constructs met the recommended threshold of 0.70, indicating acceptable internal consistency and confirming that the indicators in each construct worked together reliably to measure the same concept. Overall, the measurement model can be considered valid and reliable, allowing the study to proceed to structural model testing.

Structural Model Results

After the measurement model was validated, the structural model was evaluated using R-square, effect size (f-square), model fit indices, and bootstrapped path coefficients (Sarstedt et al., 2021). This stage assessed the extent to which the five service-quality dimensions explained variation in customer satisfaction and whether each proposed path was statistically significant.

The structural model showed strong explanatory power. The R-square value for customer satisfaction was 0.868, with an adjusted R-square of 0.860, indicating that 86.8% of the variance in customer satisfaction was explained jointly by tangibles, reliability, responsiveness, assurance, and empathy. According to the classification cited in the thesis, this value falls into the strong category, which means that the model captured the main determinants of customer satisfaction in the GOT Travel Batam context very effectively.

Model fit evaluation also indicated acceptable results. The thesis reports an SRMR value of 0.062 and an NFI value of 0.766, while dULS and dG were also considered fit in the reported output. Although PLS-SEM does not rely on global fit in the same way as covariance-based SEM, these values support the conclusion that the proposed model was reasonably consistent with the observed data (Sarstedt et al., 2021). The hypothesis test results reveal a differentiated pattern across the five dimensions. Tabel 2 summarizes the path coefficients, t-statistics, p-values, and conclusions for each hypothesis.

Tabel 2. Summary of Hypothesis Testing Results.

Hypothesis	Relationship	Path Coeff.	t-stat	p-value	Result
H1	Tangibles → Customer Satisfaction	0.124	1.366	0.086	Not Supported
H2	Reliability → Customer Satisfaction	0.270	3.135	0.001	Supported
H3	Responsiveness → Customer Satisfaction	-0.033	0.320	0.374	Not Supported
H4	Assurance → Customer Satisfaction	0.138	1.586	0.056	Not Supported
H5	Empathy → Customer Satisfaction	0.518	5.715	0.000	Supported

Note: Significance level $\alpha = 0.05$ (one-tailed). Supported if $p < 0.05$. s shown in Table 2, reliability had a positive and significant effect on customer satisfaction (path coefficient = 0.270, $p = 0.001$), thus H2 was accepted. Empathy had the strongest positive and significant

effect (path coefficient = 0.518, $p = 0.000$), so H5 was accepted. By contrast, tangibles (0.124; $p = 0.086$), responsiveness (-0.033; $p = 0.374$), and assurance (0.138; $p = 0.056$) did not reach the required significance level, leading to the rejection of H1, H3, and H4. Effect-size analysis further clarified the relative practical contribution of each dimension. Empathy had an f -square value of 0.498, categorized as a large effect, while reliability had an f -square of 0.178, indicating a moderate effect. Assurance (0.040) and tangibles (0.032) had small effects, and responsiveness had a very small effect of 0.002. This means that empathy and reliability were not only statistically significant but also substantively more influential than the other dimensions in shaping customer satisfaction.

Discussion of Hypotheses

The results show that not all SERVQUAL dimensions influence customer satisfaction equally in the GOT Travel Batam setting. This finding is important because it suggests that the digital travel-service environment alters the hierarchy of customer priorities, even when overall perceived service quality is high across all dimensions.

Tangibles and Customer Satisfaction

H1 proposed that tangibles would have a significant positive effect on customer satisfaction, but the result was not statistically significant. Although tangibles had a positive coefficient (0.124), the p -value of 0.086 was above the significance threshold, indicating that physical or visual evidence did not meaningfully drive satisfaction in this study.

This result can be explained by the character of GOT Travel Batam as an online travel agent. In a digital business model, customers interact mainly through online channels, so physical facilities, office appearance, or other conventional tangible cues are less central to their evaluation of service quality. Even if customers perceive the interface and service presentation positively, those features may function more as minimum expectations than as sources of satisfaction. This result differs from findings in more conventional travel businesses, where tangibles often play a stronger role because customers directly experience the physical service environment (Ardista, 2021; Mecha et al., 2023; Mumtaza & Millanyani, 2023; Putri et al., 2024; Sari et al., 2025).

Reliability and Customer Satisfaction

H2 was accepted, confirming that reliability has a positive and significant effect on customer satisfaction. The path coefficient of 0.270 indicates that the more GOT Travel Batam is perceived as accurate, consistent, and timely in delivering services, the higher the level of customer satisfaction.

This finding is theoretically consistent with SERVQUAL (Parasuraman et al., 1988), where reliability is often regarded as one of the most fundamental dimensions because it directly reflects the company's ability to fulfill its service promise. In the context of an OTA, reliability becomes even more crucial because customers depend on the platform's information regarding schedules, prices, availability, and booking details without being able to verify them directly in person. Therefore, accurate and dependable service delivery builds trust and reduces uncertainty, which in turn strengthens satisfaction (Gultom et al., 2020; Mecha et al., 2023; Wan Jasni et al., 2020).

Responsiveness and Customer Satisfaction

H3 was rejected because responsiveness did not significantly affect customer satisfaction. The coefficient was slightly negative (-0.033) and statistically non-significant, meaning that this dimension did not independently contribute to satisfaction in the model. This does not necessarily mean that responsiveness is unimportant; rather, it suggests that response speed alone may no longer be a differentiating factor for customers in this context. Because most respondents belonged to younger age groups that are highly familiar with digital services, fast responses may be perceived as a basic requirement rather than as a value-adding element. The thesis also notes that responsiveness may overlap conceptually with empathy, meaning that customers may interpret fast responses as part of caring and personalized treatment rather than as a distinct dimension. As a result, the explanatory power of responsiveness appears to be absorbed by empathy, which emerged as the dominant factor.

Assurance and Customer Satisfaction

H4 was also rejected, as assurance did not significantly influence customer satisfaction. Although the coefficient was positive (0.138), the p -value of 0.056 was slightly above the significance threshold, indicating that assurance did not exert a statistically reliable effect in this sample. A plausible explanation lies in the demographic characteristics of the respondents. Since most respondents were aged 17–35 years, they were more likely to be digitally accustomed users who already possess a basic level of trust in online transactions and digital platforms. For this group, assurance-related elements such as professionalism, trustworthiness, and perceived safety may be taken for granted unless something goes wrong.

In other words, assurance may operate as a hygiene factor: its absence could reduce satisfaction, but its presence alone does not necessarily enhance satisfaction substantially.

Empathy and Customer Satisfaction

H5 was accepted, and empathy emerged as the strongest predictor of customer satisfaction. With a path coefficient of 0.518, a t-statistic of 5.715, and a large effect size of 0.498, empathy had the most substantial influence in the entire model.

This result is highly meaningful in the context of digital travel services. Although OTAs rely on digital systems, customers still value human warmth, personalized communication, and genuine attention to their specific needs. The finding suggests that customers do not simply want fast or technically correct service; they want to feel understood and cared for, especially when arranging travel that may involve uncertainty, coordination, and personal preferences. In this sense, empathy becomes the main differentiator that transforms ordinary service into satisfying service (Parasuraman et al., 1988; Putri et al., 2024).

Important Findings and Implications

An important finding of this study is that descriptive scores and structural effects do not always point to the same conclusion. For example, assurance had the highest mean score among the five service-quality dimensions, yet it did not significantly affect customer satisfaction in the structural model. Conversely, empathy did not have the highest descriptive score, but it had the strongest structural effect. This indicates that dimensions that are rated highly by customers are not necessarily the ones that most strongly determine satisfaction.

Another important finding is the shifting hierarchy of service quality dimensions in a digital travel environment. In conventional service settings, tangibles and responsiveness may be more salient because customers physically encounter facilities and staff behavior (Ardista, 2021; Mecha et al., 2023; Mumtaza & Millanyani, 2023; Putri et al., 2024). In the GOT Travel Batam case, however, the dominant drivers of satisfaction were empathy and reliability, suggesting that online customers place greater weight on dependable performance and personalized attention than on physical evidence or generic speed. This finding supports the idea that the SERVQUAL framework remains useful, but the relative power of each dimension changes according to service context (Afraah et al., 2025; Jibril & Aruan, 2024; Parasuraman et al., 1988).

From a managerial perspective, the results imply that GOT Travel Batam should prioritize customer-centered communication and dependable service execution. Strengthening empathy means not only responding to customers but understanding their individual situations and offering tailored solutions. Strengthening reliability means ensuring accuracy in schedules, prices, and booking information so that customers experience the service as consistent and trustworthy. These two dimensions represent the most effective levers for increasing customer satisfaction in this specific OTA context.

5. Conclusions

This study examined the effect of service quality on customer satisfaction at GOT Travel Batam, an online travel agent operating in Batam, Indonesia. The empirical results show that the proposed model has strong explanatory power: the five SERVQUAL dimensions jointly explain 86.8% of the variance in customer satisfaction, indicating that service quality is a critical determinant of satisfaction in this digital travel-service context. However, not all dimensions contribute equally. Among the five, only reliability and empathy have significant positive effects on customer satisfaction, while tangibles, responsiveness, and assurance are not statistically significant in the structural model. Empathy emerges as the most dominant dimension, followed by reliability, highlighting that personalized attention, good communication, and dependable service performance are central drivers of satisfaction for GOT Travel Batam's customers.

These findings are closely aligned with the research objectives and provide a nuanced view of how classical SERVQUAL dimensions function in an OTA environment [13]. The study confirms that service quality remains an important predictor of customer satisfaction, but the hierarchy of its dimensions shifts when service encounters are mainly mediated by digital platforms. For GOT Travel Batam, this means that simply maintaining good visual presentation, quick responses, and general assurance is not sufficient to significantly increase satisfaction. Instead, the company must focus on building reliable service processes and fostering empathetic interactions that make customers feel understood and supported throughout their travel journey.

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