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The Effect of Service Quality on Customer Loyalty: The Mediating Role of Customer Satisfaction at Jatiluhur Valley Resort

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Abstract: Despite the macro-level post-pandemic recovery of Indonesia's domestic tourism sector, state-owned integrated resorts continue to encounter persistent challenges in sustaining visitor retention and revenue stability. Jatiluhur Valley Resort (JVR) experienced a documented commercial performance gap, where targeted revenue realization steadily dropped from 58.97% in 2022 to 43.78% in 2024 (Perum Jasa Tirta II Internal Management Report, 2025). Grounded in the Stimulus–Organism–Response (S-O-R) framework and Expectancy Disconfirmation Theory, this study examines the structural effects of five service quality dimensions (Tangibles, Reliability, Responsiveness, Assurance, and Empathy) on Customer Loyalty, as well as the mediating role of Customer Satisfaction. A quantitative explanatory cross-sectional design was conducted with 200 eligible domestic tourists at JVR. Data were evaluated using Covariance-Based Structural Equation Modeling (CB-SEM) via LISREL 8.7. The measurement model verified convergent validity ($AVE > 0.50$, $CR > 0.70$) and discriminant validity via the Fornell-Larcker criterion. The structural model exhibited close fit ($\chi^2 = 453.98$, $df = 474$, $\chi^2/df = 0.958$, $p = 0.738$, $RMSEA = 0.000$, $GFI = 0.98$, $AGFI = 0.97$). Structural path analysis revealed that all five service quality dimensions significantly predicted Customer Satisfaction ($\gamma_{Tangibles} = 0.350$, $\gamma_{Reliability} = 0.290$, $\gamma_{Responsiveness} = 0.250$, $\gamma_{Assurance} = 0.260$, $\gamma_{Empathy} = 0.280$; $p < 0.001$), accounting for 80% of its variance ($R^2 = 0.80$). For direct effects on Customer Loyalty, Tangibles ($\beta = 0.260$, $p < 0.001$), Assurance ($\beta = 0.150$, $p < 0.001$), Empathy ($\beta = 0.250$, $p < 0.001$), and Customer Satisfaction ($\beta = 0.310$, $p = 0.010$) were significant positive predictors, whereas Reliability ($\beta = 0.010$, $p = 0.890$) and Responsiveness ($\beta = 0.000$, $p = 0.960$) exerted no direct effects. Sobel mediation tests confirmed that Customer Satisfaction partially mediates the influence of Tangibles ($z = 2.41$, $p = 0.016$), Assurance ($z = 2.37$, $p = 0.018$), and Empathy ($z = 2.39$, $p = 0.017$) on Customer Loyalty, while fully mediating the effects of Reliability ($z = 2.40$, $p = 0.016$) and Responsiveness ($z = 2.36$, $p = 0.018$) ($R^2_{Loyalty} = 0.56$). These findings uncover a distinct dual-pathway mechanism in state-owned lake-side resorts: operational reliability and responsiveness function as baseline hygiene factors that drive loyalty strictly through customer satisfaction, whereas tangible aesthetics, safety assurance, and empathy

operate as strategic brand differentiators driving loyalty both directly and indirectly. Targeted managerial interventions should prioritize water recreation sanitation, physical facility upgrades, and frontline hospitality training.

Keywords: Service Quality, Customer Satisfaction, Customer Loyalty, SERVQUAL, Tourism Resort.

INTRODUCTION

Following the post-pandemic recovery era, domestic tourist mobility accelerated rapidly across the archipelago, reaching 178,854,989 national trips in 2024 (Badan Pusat Statistik, 2025). West Java Province emerged as the second-largest tourist origin and destination market nationally, generating 30,671,179 domestic trips, underpinned by regional infrastructure integration and household discretionary spending power (Tantowi, 2022). However, while aggregate tourist mobility across West Java increased by 10.23% during the January–September 2024 period, Purwakarta Regency suffered a severe contraction of 54.56% in domestic tourist visits, plummeting from 3,873,793 to 1,760,246 trips (Badan Pusat Statistik Jawa Barat, 2024).

This local tourism contraction directly affected Jatiluhur Valley Resort (JVR), an integrated lake-side resort managed by state-owned enterprise Perum Jasa Tirta II under Government Regulation No. 25 of 2022. Jatiluhur Valley Resort is positioned as an integrated recreational and accommodation complex comprising lakeside hotels, bungalows, camping facilities, outdoor watersports, and the *Jatiluhur Water World* (JWW) waterpark. Despite its long-standing brand heritage as a pioneer lake destination since 1967, JVR has experienced an acute business performance gap characterized by persistent revenue stagnation and market mismatch, as detailed in Table 1.

Table 1. Business Performance and Revenue Realization at Jatiluhur Valley Resort (2022–2024)

Year	Targeted Revenue (IDR)	Realize Revenue (IDR)	Achievement (%)
2022	18.679.860.000	11.015.800.000	58.97 %
2023	21.970.120.000	11.780.670.000	53.62 %
2024	25.335.430.000	11.092.480.000	43.78 %

Source: Internal Management Report, Perum Jasa Tirta II (2025)

As shown in Table 1, revenue achievement dropped sharply from 58.97% in 2022 to 43.78% in 2024. Internal operating data indicate that this downturn is driven by severe contractions across core operational units, notably Jatiluhur Water World (where target realization plummeted from 55.17% in 2022 to 21.94% in 2024) and entrance ticketing (dropping from 41.56% to 26.83%).

Crucially, this performance shortfall is directly attributable to service quality failures across key operational encounters. Operating records and visitor reviews show that tourists frequently encountered visible sanitation degradation and aging water facilities (*Tangibles*), unexpected technical downtime and ticketing delays (*Reliability*), sluggish staff responsiveness during peak weekend crowds (*Responsiveness*), inconsistent safety surveillance around deep aquatic zones (*Assurance*), and impersonal, transactional staff interactions (*Empathy*). In line with Expectancy Disconfirmation Theory (Oliver, 2010), these operational deficiencies generated widespread negative disconfirmation, diminishing overall satisfaction, depressing revisit intentions, and triggering the observed revenue erosion.

Although extensive literature has investigated the SERVQUAL–satisfaction–loyalty nexus across commercial hotels and urban attractions (e.g., Ali et al., 2021; Balinado et al., 2021; Boro, 2022; Han et al., 2021), significant empirical and contextual research gaps remain. First, prior studies predominantly treat service quality as a unidimensional aggregate construct or assume uniform direct effects across all dimensions, obscuring how specific operational attributes uniquely interact with psychological mechanisms in outdoor aquatic resorts. Second, state-owned enterprise (SOE) tourism destinations operate under complex socio-commercial mandates, often resulting in rigid administrative service delivery that differs fundamentally from private commercial resorts. JVR represents a theoretically compelling empirical setting because it combines public resource stewardship with commercial leisure operations.

To address these research gaps, this study integrates the five SERVQUAL dimensions (Parasuraman et al., 1988) into the Stimulus–Organism–Response (S–O–R) paradigm (Mehrabian & Russell, 1974) and Expectancy Disconfirmation Theory (Oliver, 2010). By modeling multidimensional service quality as environmental stimuli (*S*), customer satisfaction as the internal cognitive-affective organism (*O*), and customer loyalty as the behavioral response (*R*), this study clarifies the dual-pathway mechanism through which specific service dimensions directly drive loyalty versus those requiring complete psychological satisfaction mediation.

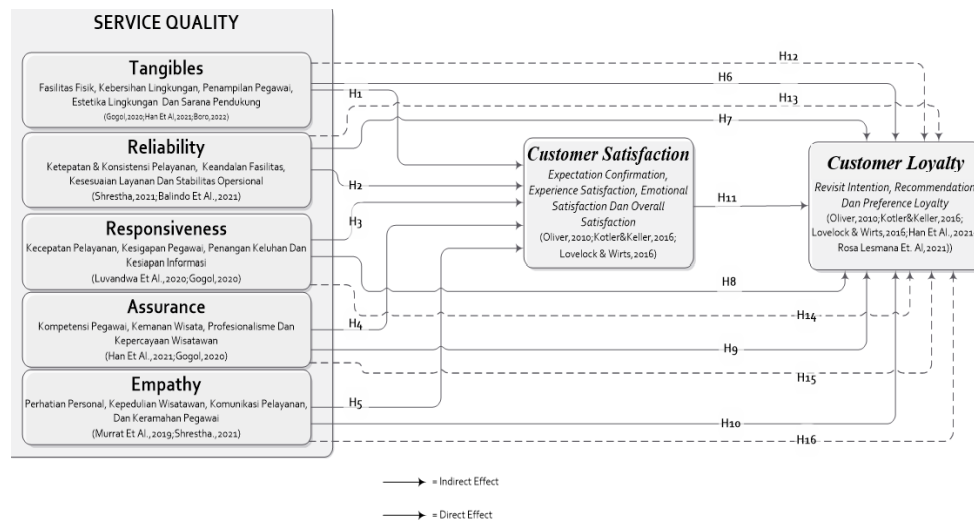
Grounded in the Stimulus-Organism-Response (S-O-R) Theory (Mehrabian & Russell, 1974; Hochreiter et al., 2023), service quality dimensions act as external environmental stimuli (*S*) that shape tourists' internal cognitive and affective evaluations (*O*), which subsequently drive behavioral responses (*R*) such as customer retention and destination loyalty (Pratminingsih et al., 2024). Service quality encompasses five core dimensions: Tangibles (X_1 , physical facilities and aesthetics), Reliability (X_2 , operational accuracy and consistency), Responsiveness (X_3 , prompt service and assistance), Assurance (X_4 , safety, competence, and trust), and Empathy (X_5 , personalized care and communication) (Parasuraman et al., 1988; Zeithaml et al., 2018; Lovelock & Wirtz, 2016). Grounded in Expectancy Disconfirmation Theory (Oliver, 2010), Customer Satisfaction (*Y*) serves as an emotional post-consumption evaluation (*O*) resulting from service encounters. In turn, Customer Loyalty (*Z*) reflects behavioral retention (*R*), manifested through repeat visits, facility usage, recommendations, and destination preference (Griffin, 2005; Oppermann, 2000).

In tourism destinations, superior physical evidence, reliable operations, prompt interactions, safety guarantees, and staff empathy function as environmental stimuli that directly shape internal tourist satisfaction (Gogoi, 2020; Shrestha, 2021; Balinado et al., 2021). Consequently, this study posits that Tangibles (H_1), Reliability (H_2), Responsiveness (H_3), Assurance (H_4), and Empathy (H_5) each exert a positive direct effect on tourist Customer Satisfaction at Jatiluhur Valley Resort. Furthermore, direct service evaluations can also stimulate behavioral intentions directly, encouraging tourists to revisit and recommend a destination (Han et al., 2021; Boro, 2022; Rajput & Gahfoor, 2020). Therefore, it is hypothesized that Tangibles (H_6), Reliability (H_7), Responsiveness (H_8), Assurance (H_9), and Empathy (H_{10}) positively influence Customer Loyalty directly.

In addition, satisfied tourists develop positive post-consumption evaluations that translate into long-term retention and destination advocacy (Kotler & Keller, 2016; Arli et al., 2024; Surahman et al., 2020), suggesting that Customer Satisfaction positively affects Customer Loyalty (H_{11}). Aligned with the S-O-R paradigm, service quality dimensions do not automatically create behavioral loyalty without first generating favorable cognitive and affective satisfaction (Lesmana et al., 2021; Putra & Zulganef, 2025; Zulganef & Hodijah, 2023). Customer satisfaction serves as a crucial psychological bridge (*O*) connecting functional service delivery with long-term customer retention (*R*). Thus, this study proposes that Customer Satisfaction significantly mediates the structural effects of Tangibles (H_{12}),

Reliability (H_{13}), Responsiveness (H_{14}), Assurance (H_{15}), and Empathy (H_{16}) on Customer Loyalty.

To comprehensively illustrate these hypothesized structural relationships, the conceptual paradigm governing this study is depicted in Figure 1.



Sources: Developed by authors from relevant literature (2026)

Figure 1. Research Paradigm

METHODS

This study utilized a quantitative explanatory cross-sectional research design to empirically validate structural and mediating relationships. The empirical setting was Jatiluhur Valley Resort, Purwakarta Regency, West Java, Indonesia. The target population comprised all domestic tourists visiting Jatiluhur Valley Resort. Given the infinite nature of the tourist population, non-probability purposive sampling was employed.

Strict screening criteria were applied: (1) domestic visitors aged 17 years or older, (2) individuals who had completed at least one full recreational or lodging stay at Jatiluhur Valley Resort within the past 12 months, ensuring that respondents possessed direct experiential memories to objectively evaluate service delivery and post-consumption outcomes.

For Covariance-Based SEM (CB-SEM) using maximum likelihood estimation, sample size adequacy was determined based on established methodological thresholds: a minimum of 200 observations is required to ensure parameter stability, statistical power (>0.8), and to prevent non-convergence or Heywood cases (Hair et al., 2019; Ferdinand, 2004). A total of 200 completed, valid questionnaires were obtained and retained for empirical modeling.

The survey instrument comprised 33 items measured on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree), adapted from established literature to fit the lake-side resort context (Table 2).

Table 2. Construct Measurement and Operationalization

Construct	Item Code	Item Statement/Operational focus	Key Literatur Sources
Tangibles	T1	Cleanliness and hygiene of public facilities and restrooms	Parasuraman et al. (1988)
	T2	Aesthetic appeal and neatness of lake-side resort surroundings	Bitner (1992); Shyju et al. (2023)
	T3	Cleanliness, safety, and water hygiene in waterpark pools	Pratminingsih et al. (2024)
	T4	Neat, professional, and recognizable employee appearance	Haghhkah et al. (2011)

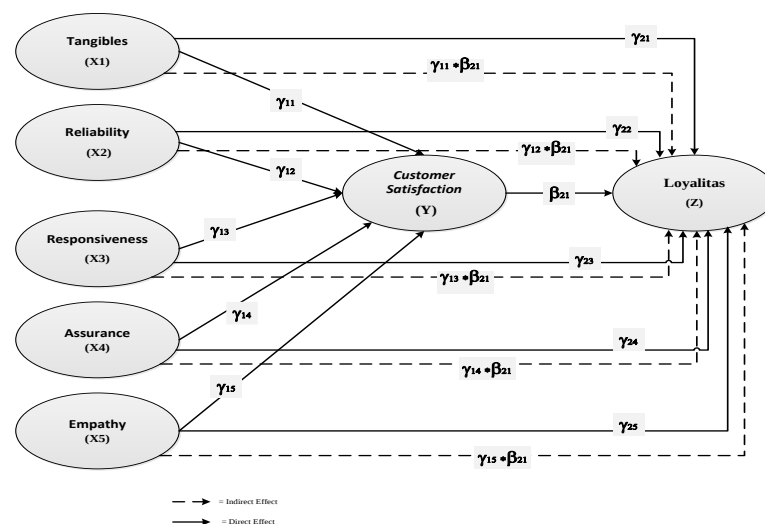
	T5	Completeness and physical readiness of resort amenities	Astina et al. (2023)
Reliability	Rel1	Consistency of operational schedules across attractions	Parasuraman et al. (1988)
	Rel2	Accuracy and error-free processing of ticketing transactions	Shrestha (2021)
	Rel3	Proper mechanical functioning and reliability of water rides	Balinado et al. (2021)
	Rel4	Delivering services exactly as promised in promotional info	Han et al. (2021)
	Rel5	Dependable lodging check-in and billing administration	Haghkhah et al. (2011)
Responsiveness	Res1	Prompt service delivery by ticket and customer service staff	Parasuraman et al. (1988)
	Res2	Willingness and readiness of employees to assist visitors	Shyju et al. (2023)
	Res3	Quick handling and resolution of visitor complaints	Gogoi (2020)
	Res4	Efficient management of ticket and ride queues during peaks	Parasuraman et al. (1988)
	Ass1	Clear safety protocols and competent lifeguards at water rides	Parasuraman et al. (1988)
Assurance	Ass2	High security, making visitors feel completely safe during stay	Han et al. (2021)
	Ass3	Knowledgeable staff capable of answering tourist inquiries	Balinado et al. (2021)
	Ass4	Courteous and trustworthy behavior exhibited by all employees	Hodijah et al. (2023)
	Emp1	Sincere personal attention given to individual visitor needs	Parasuraman et al. (1988)
Empathy	Emp2	Caring attitude shown by staff toward family and children needs	Ali et al. (2021)
	Emp3	Polite, warm, and friendly communication style of employees	Shrestha (2021)
	Emp4	Understanding specific visitor preferences and constraints	Lovelock & Wirtz (2016)
	Emp5	Convenient and customer-oriented operating hours	
Customer Satisfaction	CS1	Overall satisfaction with the lake-side resort experience	Oliver (2010)
	CS2	Resort facilities and attractions exceeded initial expectations	Kotler & Keller (2016)
	CS3	Feeling pleased and emotionally refreshed during the visit	Lovelock & Wirtz (2016)
	CS4	Decision to visit Jatiluhur Valley Resort was a right choice	
	CS5	High satisfaction with the overall quality of services received	
Customer Loyalty	Loy1	Firm intention to revisit Jatiluhur Valley Resort in the future	Griffin (2005)
	Loy2	Willingness to recommend the resort to friends and relatives	Oppermann (2000)
	Loy3	Preference for JVR as first-choice lake-side holiday destination	Lesmana et al. (2021)
	Loy4	Willingness to utilize additional amenities during repeat visits	Hanif et al. (2016)
	Loy5	Positive word-of-mouth advocacy on social media platform	Griffin (2005)

Sources: Developed by Authors from relevant literature (2026)

To mitigate and evaluate Common Method Bias (CMB), procedural remedies were applied during data collection (respondent anonymity, clear instructions, and randomized question order). Harman's single-factor test revealed that the first unrotated factor accounted for 38.42% of total variance, which is well below the critical threshold of 50%, indicating that CMB is not a pervasive concern in this study. Informed consent was obtained electronically from all participants prior to survey completion, ensuring confidentiality and voluntary participation.

Data were processed using Covariance-Based Structural Equation Modeling (CB-SEM) via LISREL 8.7. The analytical sequence comprised: (1) evaluating sample demographic characteristics, (2) assessing the Measurement Model for convergent validity (loading ≥ 0.50 , AVE ≥ 0.50 , CR ≥ 0.70) and discriminant validity (Fornell-Larcker criterion), (3) assessing the Structural Model goodness-of-fit indices, (4) testing direct path coefficients (t -value ≥ 1.96 , $p < 0.05$), and (5) conducting formal mediation analysis using the Sobel test.

Based on the phenomena, research gaps, and novelty outlined above, this study develops a conceptual model in the form of the following conceptual framework.



Source: Developed by authors (2026)

Figure 2. Conceptual Framework

RESULTS AND DISCUSSION

Results

Respondent Characteristics

The demographic profile of the 200 respondents is summarized in Table 3.

Table 3. Respondent Demographic Profile ($N = 200$)

Demographic Category	Classification	Frequency (n)
Gender	Male	72
	Female	128
Age Group	< 20 years	3
	20–29 years	65
	30–39 years	47
	40–49 years	39
	≥ 50 years	46
Domicile Origin	DKI Jakarta	4
	Bandung Raya	34
	Purwakarta & Surrounding	127
	Other Regions in West Java	39
Visit Frequency	1 time	67

	2-3 times	48
	>4 times	93
Education	High School	56
	Diploma	34
	Sarjana (S1)	89
	Pascasarjana (S2/S3)	21

Sources: Primary Data Survey (2026)

Measurement Model Evaluation

Prior to evaluating the structural relationships, the measurement model (outer model) was evaluated to assess the psychometric properties of the latent constructs. As presented in Table 4, all standardized factor loadings across the 33 measurement indicators exceeded the recommended empirical threshold of 0.50 with statistically significant t -values ($p < 0.05$). Furthermore, all latent constructs demonstrated robust convergent validity, with Average Variance Extracted (AVE) values exceeding 0.50, and high internal consistency, as evidenced by Construct Reliability (CR) values well above 0.70.

Table 4. Validity and Reliability

Variable	Item	Loading Factor	Standard Error (SE)	t value	p value	Average Variance Extracted (AVE)	Construct Reliability (CR)
Tangibles	T1	0,830	0.054	18,25	0,000	0,606	0,884
	T2	0,810	0.055	17,74	0,000		
	T3	0,760	0.058	16,55	0,000		
	T4	0,810	0.055	17,88	0,000		
	T5	0,670	0.062	14,33	0,000		
Reliability	Rel1	0,860	0.048	19,76	0,000	0,726	0,93
	Rel2	0,860	0.048	19,68	0,000		
	Rel3	0,820	0.051	18,76	0,000		
	Rel4	0,870	0.047	19,91	0,000		
	Rel5	0,850	0.049	19,59	0,000		
Responsive ness	Res1	0,910	0.042	20,71	0,000	0,788	0,937
	Res2	0,880	0.045	19,82	0,000		
	Res3	0,910	0.042	20,68	0,000		
	Res4	0,850	0.048	19,19	0,000		
Assurance	Ass1	0,850	0.049	19,2	0,000	0,771	0,931
	Ass2	0,840	0.050	18,94	0,000		
	Ass3	0,920	0.041	20,95	0,000		
	Ass4	0,900	0.043	20,41	0,000		
Empathy	Emp1	0,930	0.039	21,99	0,000	0,779	0,946
	Emp2	0,870	0.046	20,44	0,000		
	Emp3	0,890	0.044	20,92	0,000		
	Emp4	0,890	0.044	21	0,000		
	Emp5	0,830	0.050	19,43	0,000		
Customer Satisfaction	CS1	0,870	0.046	-	0,000	0,76	0,941
	CS2	0,860	0.047	16,68	0,000		
	CS3	0,880	0.045	16,89	0,000		
	CS4	0,870	0.046	16,69	0,000		
	CS5	0,880	0.045	16,86	0,000		
Loyalitas	Loy1	0,880	0.045	-	0,000	0,73	0,931
	Loy2	0,840	0.049	15,54	0,000		
	Loy3	0,840	0.049	15,62	0,000		
	Loy4	0,850	0.048	15,67	0,000		
	Loy5	0,860	0.047	15,78	0,000		

Source: Output LISREL 8.7 (2026)

Structural Model Test Results

The structural model exhibited excellent model fit across multiple goodness-of-fit indices, as summarized in Table 3 (*Chi-Square* = 453.98, *df* = 474, *p*-value = 0.73824, RMSEA = 0.000, GFI = 0.98, AGFI = 0.97, NFI = 0.98, PNFI = 0.88, PGFI = 0.83).

Table 5. Goodness of Fit Summary of the Structural Model

Measure of Degree of Match	Value	explanation
Absolute Fit Test		
<i>Chi Square</i>	453.98	Close Fit
<i>Normed Chi Square (x2/df)</i>	<i>P -value</i> = 0.73824	
<i>Goodness of Fit Index (GFI)</i>	0,98	Close fit
<i>Root Mean Square Error of Approximation (RMSEA)</i>	0	Close fit
Incremental Fit Measures		
<i>Adjusted Goodness of Fit Index (AGFI)</i>	0,97	Close fit
<i>Normed Fit Index (NFI)</i>	0.98	Close fit
Parsimonius Fit Measures		
<i>Parsimonious Normed Fit Index (PNFI)</i>	0.88	Close fit
<i>Parsimonious GFI (PGFI)</i>	0.83	fit

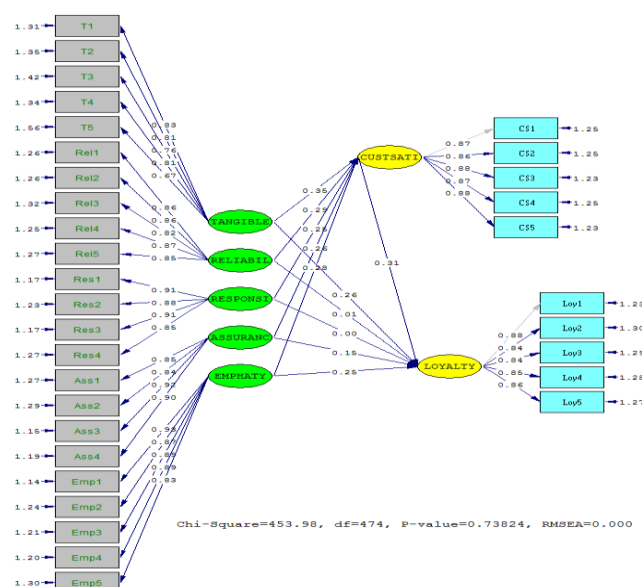
Source: Output LISREL 8.7 (2026)

Based on the structural model framework tested, the following results were obtained:

$$\text{CUSTSATIS} = 0.35 \cdot \text{TANGIBLE} + 0.29 \cdot \text{RELIABIL} + 0.25 \cdot \text{RESPONSI} + 0.26 \cdot \text{ASSURANC} + 0.28 \cdot \text{EMPHATY}, R^2 = 0.80$$

$$\text{LOYALTY} = 0.31 \cdot \text{CUSTSATI} + 0.26 \cdot \text{TANGIBLE} + 0.0070 \cdot \text{RELIABIL} + 0.0021 \cdot \text{RESPONSI} + 0.15 \cdot \text{ASSURANC} + 0.25 \cdot \text{EMPHATY}, R^2 = 0.56$$

The structural framework explained 80% of the variance in Customer Satisfaction ($R^2 = 0.80$) and 56% of the variance in Customer Loyalty ($R^2 = 0.56$), indicating substantial explanatory power.

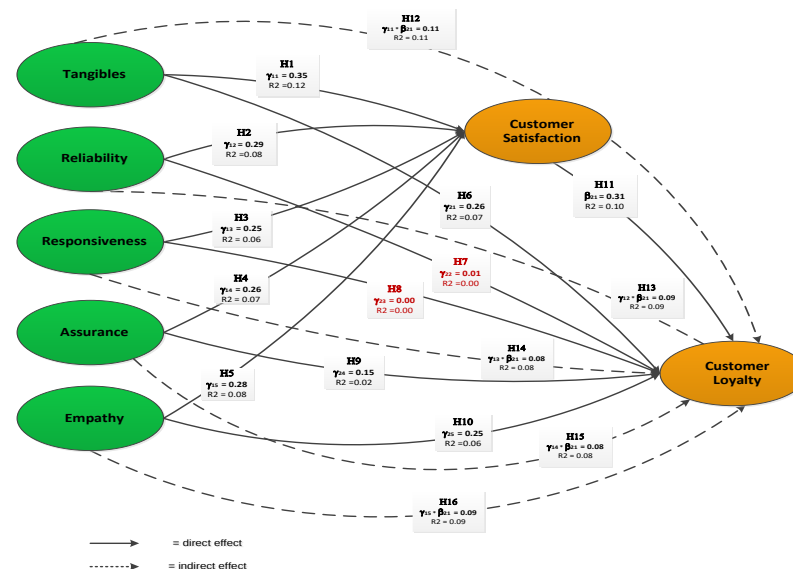


Source: Output LISREL 8.7 (2026)

Figure 3. Results of testing the Research Model

Hypothesis Testing Results

The results reveal that all Service Quality dimensions (Tangibles, Reliability, Responsiveness, Assurance, and Empathy) have significant positive effects on Customer Satisfaction. Regarding Customer Loyalty, Tangibles, Assurance, Empathy, and Customer Satisfaction exhibit significant positive effects, whereas Reliability and Responsiveness show no significant direct effects. Mediation analysis using the Sobel test confirms that Customer Satisfaction significantly mediates the relationships between all Service Quality dimensions and Customer Loyalty. Partial mediation is observed for Tangibles, Assurance, and Empathy, while full mediation occurs for Reliability and Responsiveness.



Source: Output LISREL 8.7 (2026)

Figure 4. Hypotheses Testing Summary (Direct and Indirect Effects)

Table 6. Hypotheses Testing Summary (Direct and Indirect Effects)

No	Hypothesis	Path Coeff.	p value	R ²	Decision	Mediation Type
1	Tangibles have a positive effect on tourist customer satisfaction	0,350	0,000	0,120	Supported	-
2	Reliability has a positive effect on tourist customer satisfaction.	0,290	0,000	0,080	Supported	-
3	Responsiveness has a positive effect on tourist customer satisfaction.	0,250	0,000	0,060	Supported	-
4	Assurance has a positive effect on tourist customer satisfaction.	0,260	0,000	0,070	Supported	-
5	Empathy has a positive effect on tourist customer satisfaction.	0,280	0,000	0,080	Supported	-
6	Tangibles have a positive effect on customer loyalty.	0,260	0,000	0,070	Supported	Direct Effect
7	Reliability has a positive effect on customer loyalty.	0,010	0,890	0,000	Not Supported	No Direct Effect
8	Responsiveness has a positive effect on customer loyalty.	0,000	0,960	0,000	Not Supported	No Direct Effect
9	Assurance has a positive effect on customer loyalty.	0,150	0,000	0,020	Supported	Direct Effect
10	Empathy has a positive effect on customer loyalty.	0,250	0,000	0,060	Supported	Direct Effect
11	Customer satisfaction has a positive effect on customer loyalty.	0,310	0,010	0,100	Supported	Direct Effect

12	Tangibles have a positive effect on customer loyalty through customer satisfaction as a mediating variable.	0,110	0,010	0,110	Supported	Partial Mediation
13	Reliability has a positive effect on customer loyalty through customer satisfaction as a mediating variable.	0,090	0,010	0,090	Supported	Full Mediation
14	Responsiveness has a positive effect on customer loyalty through customer satisfaction as a mediating variable.	0,080	0,010	0,080	Supported	Full Mediation
15	Assurance has a positive effect on customer loyalty through customer satisfaction as a mediating variable.	0,080	0,010	0,080	Supported	Partial Mediation
16	Empathy has a positive effect on customer loyalty through customer satisfaction as a mediating variable.	0,090	0,010	0,090	Supported	Partial Mediation

Source: Output LISREL 8.7 (2026)

Discussion

The empirical findings confirm the robustness of the Stimulus-Organism-Response (S-O-R) framework in integrated resort settings. The structural evaluation demonstrates that external service quality stimuli (*S*) account for 80% of the variance in tourist customer satisfaction ($R^2 = 0.80$), while customer satisfaction and direct service dimensions explain 56% of customer loyalty ($R^2 = 0.56$).

The Determinants of Customer Satisfaction (H_1 - H_5)

All five SERVQUAL dimensions exert statistically significant positive effects on Customer Satisfaction ($p < 0.001$), supporting H_1 through H_5 . *Tangibles* emerged as the most powerful determinant ($\gamma = 0.350, R^2 = 0.120$). This indicates that the visual and physical environment including scenic resort surroundings, cleanliness of public facilities, and accommodation quality acts as the primary trigger shaping positive emotional evaluations (*O*) among tourists. This aligns with Bitner's (1992) servicescape theory and findings by Pratminingsih et al. (2024), confirming that in nature- and leisure-based resorts, physical evidence serves as the foundational lens through which overall experience is evaluated. Furthermore, *Reliability* ($\gamma = 0.290$) and *Empathy* ($\gamma = 0.280$) serve as vital satisfaction drivers, affirming that accurate ticketing transactions, dependable ride operations, and warm employee hospitality are essential to fulfilling baseline visitor expectations (Balinado et al., 2021; Shrestha, 2021).

Direct Drivers of Customer Loyalty (H_6 - H_{10})

The structural results reveal a critical dichotomy regarding direct behavioral loyalty. *Tangibles* ($\beta = 0.260$), *Empathy* ($\beta = 0.250$), and *Assurance* ($\beta = 0.150$) exert significant direct effects on Customer Loyalty ($p < 0.001$), supporting H_6 , H_9 , and H_{10} . This confirms that memorable physical facilities, sincere interpersonal hospitality, and certified safety standards directly encourage repeat visits and positive word-of-mouth advocacy (Han et al., 2021; Boro, 2022).

Conversely, *Reliability* ($\beta = 0.010, p = 0.890$) and *Responsiveness* ($\beta = 0.000, p = 0.960$) have no direct effect on Customer Loyalty, leading to the rejection of H_7 and H_8 . This finding illustrates that in experiential tourism, operational dependability and prompt service are treated by visitors as basic baseline expectations (*hygiene factors*) rather than unique differentiators. While failure in reliability or responsiveness causes immediate dissatisfaction, their mere presence is insufficient to drive repeat visits directly unless they succeed in generating a deeply satisfying emotional experience.

The Mediating Role of Customer Satisfaction (H_{11} - H_{16})

Customer Satisfaction significantly influences Customer Loyalty ($\beta = 0.310, p = 0.010$), supporting H_{11} and confirming that loyalty is fundamentally anchored in positive post-consumption evaluations (Oliver, 2010). Sobel mediation tests confirm that Customer Satisfaction functions as an indispensable mediating mechanism across all five dimensions:

1. Partial Mediation: Confirmed for *Tangibles* (H_{12} :indirect = 0.110), *Assurance* (H_{15} :indirect = 0.080), and *Empathy* (H_{16} :indirect = 0.090). These three dimensions exert dual power enhancing loyalty directly and indirectly by elevating customer satisfaction.
2. Full Mediation: Confirmed for *Reliability* (H_{13} :indirect = 0.090, $p = 0.010$) and *Responsiveness* (H_{14} :indirect = 0.080, $p = 0.010$). Because their direct effects are non-significant, the influence of operational reliability and prompt staff response is channeled entirely through Customer Satisfaction.

The theoretical contribution of this study clarifies the dual-pathway mechanism governing service quality in state-owned integrated tourism destinations. Rather than treating all SERVQUAL dimensions as homogenous direct antecedents of loyalty, this research empirically proves that *Tangibles*, *Assurance*, and *Empathy* function as strategic brand differentiators (driving loyalty both directly and indirectly), whereas *Reliability* and *Responsiveness* function as operational hygiene factors (driving loyalty exclusively through full satisfaction mediation). For state-owned resorts transitioning toward commercial excellence, administrative reliability alone is insufficient; long-term customer retention requires modernization of physical assets and frontline hospitality excellence.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study validates the S-O-R paradigm in explaining the structural conversion of service quality into customer loyalty through customer satisfaction at Jatiluhur Valley Resort. All five SERVQUAL dimensions significantly predict Customer Satisfaction ($R^2 = 0.80$), with *Tangibles* emerging as the strongest determinant. Furthermore, *Tangibles*, *Assurance*, and *Empathy* directly drive *Customer Loyalty*, whereas *Reliability* and *Responsiveness* influence loyalty solely through full mediation by *Customer Satisfaction* ($R^2 = 0.56$). Customer satisfaction serves as the central psychological mechanism required to convert baseline service operations into sustainable repeat visitation and destination advocacy.

Limitations

This study has several limitations. First, it was conducted solely on domestic tourists at Jatiluhur Valley Resort during a specific cross-sectional observation period, so the findings cannot yet be fully generalized to all regional tourism destinations or international tourist segments. Second, the study focused exclusively on five SERVQUAL dimensions and Customer Satisfaction as drivers of loyalty, while external marketing variables such as destination image, perceived value, perceived price, digital promotion, and electronic word-of-mouth (e-WOM) were not examined within the current model. Third, the cross-sectional survey approach does not fully capture long-term dynamic shifts in tourist behavioral loyalty over extended operational cycles.

Recommendations

To overcome the ongoing performance gap and revenue declines at Jatiluhur Valley Resort, management at Perum Jasa Tirta II must implement targeted managerial actions, such as (1) Strategic Capital Allocation for Tangible Modernization, Since *Tangibles* exerts the

strongest effect on satisfaction ($\gamma = 0.350$) and directly drives loyalty ($\beta = 0.260$), capital expenditure must prioritize modernizing water filtration systems in *Jatiluhur Water World*, renovating lakeside accommodations, and upgrading public restroom hygiene, (2) Hospitality Training for Frontline Empathy, Because *Empathy* directly and indirectly enhances loyalty ($\beta = 0.250$, total = 0.337), management should implement structured hospitality training focusing on warm interpersonal communication, proactive family assistance, and attentive visitor care, (3) Safety Assurance Protocols, Management must enforce certified lifeguard presence and visible safety equipment across water recreational zones to reinforce visitor security and trust ($\beta = 0.150$), (4) Converting Operational Hygiene into Satisfaction, to leverage *Reliability* and *Responsiveness* (which require full satisfaction mediation), management should implement automated digital ticketing to eliminate queue bottlenecks and institute preventive maintenance schedules for waterpark machinery

Author Contributions

All authors made significant contributions to this study. The first author took primary responsibility for the research conceptualization, literature review, data collection, statistical SEM analysis, interpretation of empirical results, and drafting of the manuscript. The second author contributed to formulating the theoretical paradigm, guiding methodological rigor, critically reviewing and revising the scholarly content, and approving the final version for submission. Both authors confirm that they have read and approved the final version of the article submitted for publication.

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