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How Cognitive, Affective and Conative Image Dimensions Shape Tourist Loyalty in a Mixed-Image Destination

Kabul Trifiyanto[1], Kholifah[2], Tuti Zakiyah[3*]

[1,2,3]Department of Business Administration, Universitas Putra Bangsa, Central Java, Indonesia
[*]Corresponding author: Tuti Zakiyah
Corresponding email: tutizakiyah@gmail.com

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ABSTRACT
Destination image is widely linked to loyalty, yet the mechanism connecting evaluative image dimensions to loyal behaviour remains only partially specified, particularly in mixed-image destinations where favourable and unfavourable perceptions coexist. This study examines whether conative image mediates the effects of cognitive and affective image on destination loyalty among domestic tourists in Yogyakarta, Indonesia. Data from 529 usable responses collected between July and September 2024 were analysed using Partial Least Squares Structural Equation Modelling with 5,000 bootstrap subsamples. Cognitive and affective image both exert significant direct effects on loyalty and significant indirect effects through conative image, indicating complementary partial mediation. Contrary to the affective-dominance view, cognitive and affective image produced statistically indistinguishable total effects on destination loyalty. The model explains 36.3 per cent of the variance in conative image and 51.6 per cent in destination loyalty. The findings suggest that destination managers in mixed-image settings should balance emotional positioning with improvements in functional destination attributes rather than prioritising affective appeals alone. These findings extend the cognitive–affective–conative framework by showing that conative image functions as a meaningful transmission mechanism and that cognitive and affective evaluations can contribute comparably to loyalty in a mixed-image destination.

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1. Introduction

Competition among tourism destinations has intensified as travel volumes have normalised and the cost of switching destinations has fallen for the traveller(Demirovic et al., 2017; Haji et al., 2022; Hanafiah & Zulkifly, 2019). Because a destination is an experiential product that cannot be inspected before consumption, destination image functions as one of the principal intangible assets shaping expectations, evaluation and subsequent behaviour, alongside price, accessibility, social influence and prior experience. A substantial body of research therefore treats destination image as an important antecedent of destination choice, satisfaction, revisit intention and recommendation behaviour (Afshardoost & Eshaghi, 2020; Nguyen Viet et al., 2020; Pan et al., 2021; Riesa et al., 2022). What remains contested is not whether image matters, but how its constituent dimensions combine to produce loyalty.

The Cognitive–Affective–Conative (CAC) framework explains destination image as a three-stage process. Tourists first evaluate what a destination offers (cognitive image), then develop feelings toward it (affective image), and finally form intentions to visit, revisit, or recommend it (conative image) (Tang et al., 2025; Yang et al., 2022). However, this sequence generally assumes that tourists' evaluations and feelings develop in the same direction (Guan et al., 2023; Woosnam et al., 2020; Zuo et al., 2024). Several empirical studies position conative image as the final outcome in the CAC sequence rather than as a mediator. Consequently, how cognitive and affective evaluations are converted into destination loyalty remains insufficiently tested.

A mixed destination image occurs when the same tourist holds both favourable and unfavourable evaluations of a destination. In this study, therefore, mixed image is considered at the individual level rather than as differences in perceptions across tourists. This condition challenges the conventional CAC sequence because tourists' cognitive evaluations may not always align with their emotional responses. Yet, little is known about how cognitive and affective images jointly shape subsequent behavioural intentions when such conflicting evaluations coexist. This issue is particularly relevant to Yogyakarta, where strong cultural and hospitality attributes coexist with concerns such as congestion, cleanliness, public transport, and overcrowding.

This study addresses these gaps by examining whether conative image mediates the effects of cognitive and affective image on destination loyalty among domestic tourists in Yogyakarta. It makes three contributions. First, it extends the CAC framework by positioning conative image as a mediating mechanism rather than solely as a final behavioural outcome. Second, it compares the relative effects of cognitive and affective image on destination loyalty, providing empirical evidence on whether emotional evaluations are more influential than cognitive evaluations. Third, it clarifies the conceptual distinction between conative image and destination loyalty, two closely related constructs that are often treated interchangeably in tourism research. By examining these relationships in a mixed-image destination, the study provides a more nuanced explanation of how tourists' evaluations and emotions are translated into destination loyalty.

1.1 Destination loyalty and the hierarchy of image effects

Destination loyalty denotes a tourist's commitment or allegiance to a destination, reflected in intentions to revisit and recommend it even in a competitive destination market (Jiang et al., 2022; Xu et al., 2021). Destination loyalty is particularly complex because even satisfied tourists may choose to visit a different destination on their next trip in search of new experiences. Destination loyalty is commonly reflected in tourists' intention to revisit and willingness to recommend the destination, while destination preference may represent an additional attitudinal expression of loyalty (Godovykh & Tasci, 2021; Jiang et al., 2022).

CAC framework explains that cognitive image refers to tourists' knowledge and evaluations of destination attributes, such as accommodation, accessibility, safety, and value for money. Affective image reflects tourists' feelings toward the destination, while conative image refers to future behavioural intentions, such as visiting, revisiting, or recommending the destination (Ćulić et al., 2021). The sequence parallels the classic think-feel-do ordering in consumer behaviour and is consistent with the position of intention as the proximal antecedent of behaviour in the theory of planned behaviour.

There are two reasons to expect conative image to mediate the relationship between cognitive and affective image and destination loyalty. First, tourists' cognitive evaluations and affective responses toward a destination can shape their behavioural intentions, such as revisiting and recommending the destination, which are commonly regarded as expressions of destination loyalty (Biswas & R. V., 2020; Ćulić et al., 2021). Second, this mediation is likely to be partial because loyalty can also develop through other mechanisms, such as emotional attachment and habitual preference. However, the mediating role of conative image in linking cognitive and affective image to destination loyalty remains insufficiently understood.

The mixed-image context raises an important question about the relative influence of cognitive and affective image. While emotional responses can strongly contribute to destination loyalty, cognitive evaluations of destination attributes may also remain important. Thus, which dimension exerts the stronger influence under mixed evaluations remains an empirical question (Stylidis et al., 2020; Tasci et al., 2022; Zuo et al., 2024).

Accordingly, seven hypotheses are proposed.
H1: cognitive image positively influences destination loyalty
H2: affective image positively influences destination loyalty
H3: cognitive image positively influences conative image
H4: affective image positively influences conative image
H5: conative image positively influences destination loyalty
H6: conative image mediates the relationship between cognitive image and destination loyalty
H7: conative image mediates the relationship between affective image and destination loyalty

2. Research Method

The study employs a quantitative, explanatory cross-sectional design and estimates the hypothesised relationships with Partial Least Squares Structural Equation Modelling (PLS-SEM). PLS-SEM was selected because the study focuses on estimating direct and indirect effects in a predictive mediation model, employs several short reflective constructs, and relies on bootstrap inference for mediation analysis.

2.1 Research setting, population and sampling

Yogyakarta was selected because it displays the defining characteristics of a mixed-image destination: internationally recognised cultural assets and hospitality coexist with acknowledged deficiencies in traffic management, public transport and environmental cleanliness. The target population comprised Indonesian domestic tourists who had visited Yogyakarta. Domestic tourists were chosen because they constitute the dominant visitor segment and the principal source of destination revenue, and because their perceptions are formed under conditions of cultural familiarity that differ from those of international visitors.

Purposive sampling was applied with eligibility criteria requiring Indonesian citizenship, at least one prior visit to Yogyakarta within the preceding two years, and a minimum age of 17 years. Screening questions preceded the main instrument and terminated the questionnaire for respondents who did not meet the criteria. Data were collected between July and September 2024, so that both the high season and the shoulder season were represented, through two parallel channels.

The online channel distributed a self-administered questionnaire link through WhatsApp and Instagram. No dedicated tourism community served as a distribution partner; the link was shared broadly across these platforms rather than through named community administrators. The link was posted between July and August 2024 and was accompanied by the eligibility criteria and a consent statement. The on-site channel used intercept surveys conducted by three trained enumerators around Malioboro and its surrounding area during August 2024, approaching visitors who had already visited Yogyakarta more than once within the preceding year. No incentive was offered to respondents.

Potential duplicate responses were screened after data collection by identifying records identical across all variables, resulting in the removal of 14 duplicate submissions. The only systematic check was applied after data collection: the complete data file was screened for records identical across all thirty variables, including the free-text domicile field, and the fourteen such records identified were treated as duplicate submissions and removed. A total of 543 responses were received.

2.2 Sample size and statistical power

The sample size was determined by an a priori power analysis rather than by the ten-times rule, which is known to yield imprecise estimates (Kock & Hadaya, 2018). The relevant design parameter in PLS-SEM is the maximum number of predictors pointing at any single endogenous construct; in the present model that construct is destination loyalty, which receives three predictors. The significance level was set at $\alpha = 0.05$ (two-tailed) and the desired power at 0.80.

Two conventions were applied. Under the Cohen (1988) framework for the F-test of the increment in explained variance contributed by one predictor among three, detecting a medium effect ($f^2 = 0.15$) requires n = 55 and detecting a small effect ($f^2 = 0.02$) requires n = 395. Because meta-analytic evidence on destination image models reports predominantly small-to-medium standardised effects, the medium-effect target was judged insufficient and the small-effect target of 395 was adopted. Under the inverse square root method of Kock and Hadaya (2018), which is specific to PLS-SEM, an anticipated minimum absolute path coefficient of 0.15 requires n = 275. The binding requirement across the two conventions is therefore n = 395, which the 529 analysed cases exceed by 34 per cent.

A sensitivity check confirms the adequacy of the realised sample. At n = 529 with three predictors, $\alpha = 0.05$ and power = 0.80, the minimum detectable effect is $f^2 = 0.015$, corresponding to a standardised path coefficient of approximately 0.09. The smallest effect observed in the structural model, $f^2 = 0.062$ for the conative-to-loyalty path, is detected with power exceeding 0.999.

2.3 Measurement

All constructs were measured with reflective multi-item scales adapted from established instruments and translated into Indonesian through a translation and back-translation procedure. Responses were recorded on a four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). The forced-choice format without a neutral midpoint was adopted to reduce central-tendency response bias; its implication for the observed variance is addressed in the limitations.

Cognitive and affective image were adapted from the mixed-image destination scale developed and validated by Ragb et al. (2020). That instrument was selected in preference to the more widely used general-purpose scales because it was constructed specifically for destinations whose image is internally inconsistent, which is the defining feature of the present setting. Thirteen cognitive attributes were retained from it, spanning value for money, general infrastructure, tourism infrastructure, hospitality and security, relaxation and outdoor activities, natural attractions, and archaeological and cultural attractions. Affective image was measured with the four attributes of that scale, which operationalise the pleasure and arousal axes of the affective space described by Russell and Pratt (1980) and applied to destinations by Baloglu and Brinberg (1997). Conative image was measured with three items adapted from Agapito et al. (2013), and destination loyalty with three items adapted from the conative and action loyalty stages of Han et al. (2011). Demographic information was collected for sample description.

2.4 Data screening

Before estimation the raw file was screened in four steps. First, completeness and range: no missing values and no out-of-range values were detected across the 23 substantive items. Second, duplicate records: fourteen response records were byte-identical across all thirty variables, including free-text domicile, and were treated as duplicate submissions and removed, leaving 529 cases for analysis. Third, careless responding: the long-string index and intra-individual response variability were computed for every case (Meade & Craig, 2012). Forty-five cases in the retained sample showed an identical response to all 23 items. These cases were not removed from the main analysis because deletion is contested when no attention-check items were embedded in the instrument; instead, the model was re-estimated without them as a robustness check, reported in the Results. Fourth, multivariate outliers were examined using Mahalanobis distance; no case was removed on this basis alone because extreme profiles are substantively meaningful in a mixed-image setting. Table 2 summarises the screening and purification decisions.

The premise of the study was verified before estimation. Following the operational logic of attitudinal ambivalence (Thompson et al., 1995), each respondent's thirteen cognitive attribute ratings were classified as favourable (3 or 4) or unfavourable (1 or 2), and coexistence was recorded where both classes appear in the same response vector. Two hundred and eighteen respondents, or 41.2 per cent of the sample, gave at least one favourable and at least one unfavourable cognitive rating, and 128 respondents, or 24.2 per cent, combined a favourable mean affective evaluation with at least one unfavourable cognitive rating. Coexistence is therefore a property of a substantial minority of the observed response vectors rather than a stylised premise.

2.5 Analytical procedure

Estimation followed the standard two-stage protocol. The measurement model was assessed through outer loadings, Cronbach's alpha, the reliability coefficient rho_A, composite reliability, average variance extracted, the Fornell-Larcker criterion, cross-loadings, and the heterotrait-monotrait (HTMT) ratio with bootstrap confidence intervals (Fornell & Larcker, 1981; Henseler et al., 2015; Franke & Sarstedt, 2019). The structural model was assessed through collinearity diagnostics, path coefficients with bootstrap standard errors based on 5,000 subsamples, coefficients of determination, effect sizes, cross-validated redundancy, the standardised root mean square residual and the goodness-of-fit index (Tenenhaus et al., 2005; Wetzels et al., 2009; Shmueli et al., 2019). Mediation was evaluated by testing the significance of the specific indirect effects and classifying the resulting pattern following Zhao et al. (2010) and Nitzl et al. (2016), supplemented by the variance accounted for.

The comparison of the two total effects was conducted in two stages. The difference between them was computed within each bootstrap subsample, yielding an empirical sampling distribution of the difference from which a conventional two-tailed test was derived. Because a non-significant difference is not evidence of equality, the difference was then submitted to a two one-sided tests (TOST) equivalence procedure with a pre-specified equivalence bound (Lakens, 2017; Lakens et al., 2018). The substantive justification for the bound is given in Section 3.5.

Common method bias was addressed procedurally through anonymity assurances, randomised item order and explicit instructions that no answers were correct or incorrect, and statistically through Harman's single-factor test and a full collinearity assessment (Podsakoff et al., 2003; Kock, 2015). The unrotated first factor accounted for 38.3 per cent of the total variance, below the 50 per cent threshold, and all full-collinearity variance inflation factors remained below 2.0, indicating that common method variance is unlikely to account for the observed relationships.

3. Results

3.1 Respondent profile

Table 1 reports the demographic composition of the 529 analysed cases. The sample is close to balanced by gender and is concentrated in the 20 to 35 year age band, consistent with the dominance of younger cohorts in Indonesian domestic tourism. Educational attainment is skewed towards tertiary education and current students, and private-sector employees form the largest occupational group. More than three-quarters of respondents reside outside the Special Region of Yogyakarta, confirming that the responses reflect visitor rather than resident perspectives.

Table 1. Respondent profile

Characteristic	Category	Frequency	Percentage
Gender	Male	252	47.6
	Female	277	52.4
Age	18–20 years	89	16.8
	20–35 years	299	56.5
	35–50 years	123	23.3
	Over 50 years	18	3.4

Characteristic	Category	Frequency	Percentage
Education	Senior high school	162	30.6
	University graduate	202	38.2
	Current student	165	31.2
Occupation	Private employee	214	40.5
	Student	132	25.0
	Government officer	66	12.5
	Homemaker	59	11.2
	Professional	58	11.0
Marital status	Single	310	58.6
	Married	219	41.4
Monthly income	Up to Rp 2,000,000	148	28.0
	Rp 3,000,000–4,000,000	181	34.2
	Rp 5,000,000–6,000,000	114	21.6
	Rp 7,000,000–8,000,000	49	9.3
	Above Rp 8,000,000	37	7.0
Domicile	Special Region of Yogyakarta	117	22.1
	Outside Yogyakarta	412	77.9

Source: primary data, 2024. Percentages may not sum to 100 because of rounding.

3.2 Data screening and item purification

Table 2 documents the screening and purification sequence. Of the 543 responses received, fourteen duplicate submissions were removed, leaving 529 cases. Of the 23 substantive items, eleven were removed during purification and twelve were retained. The purification decisions and their justifications are stated explicitly so that the analysis can be reproduced from the raw file.

Table 2. Data screening and item purification

Step	Criterion applied	Result	Decision
Completeness	Missing values across 23 items	0	No case removed
Range check	Values outside 1–4	0	No case removed
Duplicate records	Identical across all 30 variables	14 cases	Removed (n = 529)
Careless responding	Long-string index equal to 23	45 cases	Retained; robustness check reported
Multivariate outliers	Mahalanobis distance, $p < 0.001$	42 cases	Retained as substantively meaningful
Item purification: cognitive image	AVE of construct below 0.50	COG4, COG5, COG6, COG7, COG8, COG9, COG10, COG11 removed	5 of 13 items retained
Item purification: affective image	HTMT with destination loyalty above range; arousal-axis indicators	AFF3, AFF4 removed	2 of 4 items retained (pleasure axis)

Step	Criterion applied	Result	Decision
Item purification: conative image	Content duplication with loyalty item DES2	CON2 removed	2 of 3 items retained
Item purification: destination loyalty	All criteria satisfied	None removed	3 of 3 items retained

AVE = average variance extracted; HTMT = heterotrait-monotrait ratio of correlations.

3.3 Measurement model before purification

Because eleven of twenty-three items were removed, the quality of the measurement model before any removal is reported so that the reader can judge what purification accomplished and what it cost.

Table 3. Measurement model before item purification (23 items)

Construct	Items	Loading range	Cronbach's alpha	rho_a	CR*	AVE
Cognitive image	13	0.556–0.676	0.865	0.867	0.889	0.383
Affective image	4	0.767–0.805	0.796	0.798	0.867	0.620
Conative image	3	0.775–0.807	0.701	0.702	0.833	0.625
Destination loyalty	3	0.782–0.829	0.722	0.724	0.844	0.643

HTMT ratio**	Value [95% bootstrap CI]
Cognitive – Affective	0.843 [0.779, 0.901]
Cognitive – Conative	0.863 [0.797, 0.927]
Cognitive – Loyalty	0.853 [0.783, 0.919]
Affective – Conative	0.908 [0.836, 0.974]
Affective – Loyalty	0.947 [0.881, 1.013]
Conative – Loyalty	0.908 [0.834, 0.982]

**CR = composite reliability. The average variance extracted of cognitive image (0.383) and the affective–loyalty*
***HTMT ratio (0.947, upper bound 1.010) fail their respective criteria.*

Internal consistency is satisfactory throughout, so the case for purification does not rest on reliability. Convergent validity, however, fails for cognitive image: with all thirteen attributes retained the construct explains only 38.3 per cent of its indicator variance, and no individual loading reaches 0.708. Discriminant validity also fails: three of the six HTMT ratios exceed 0.90, and the ratio between affective image and destination loyalty reaches 0.947 with a bootstrap confidence interval whose upper bound includes unity, which is a failure of the inferential HTMT test rather than of a heuristic threshold (Henseler et al., 2015; Franke & Sarstedt, 2019).

Structural estimates obtained from this instrument are not interpretable as evidence about the constructs, because two pairs of constructs are not empirically distinguishable; the apparent superiority of the affective pathway on the unpurified instrument is inseparable from shared item content between the arousal-axis affective indicators and the loyalty indicators. It is nonetheless relevant that even on this instrument the difference between the two total effects is 0.139 with a bootstrap standard error of 0.091 and p = 0.130, and therefore does not attain significance. The central conclusion of the study, that the data provide no evidence of affective dominance, does not depend on the purification decisions. The cost of purification is a genuine narrowing of content coverage: cognitive image is reduced to the functional-utilitarian facet of the Ragb et al. (2020) scale, and affective image to the pleasure axis alone. This is restated in the limitations.

Outer loadings, reliability coefficients, average variance extracted, and HTMT ratios (including their bootstrap confidence intervals) for the 23-item model were independently verified in SmartPLS 4.0 and matched the values reported above. The difference between the two total effects on this unpurified instrument (0.139) and its bootstrap standard error (0.091) were derived from a custom

bootstrap procedure computed within each resample, since SmartPLS does not expose per-replicate bootstrap output required for this comparison.

3.4 Measurement model after purification

Table 4 reports outer loadings, bootstrap t-statistics and item descriptive statistics for the twelve retained indicators. All loadings are positive, significant at $p < 0.001$, and range from 0.663 to 0.873. Nine loadings exceed the preferred 0.708 benchmark; the three cognitive items below that value are retained because they remain above 0.60 and because their removal would not raise the construct's average variance extracted above the threshold while further narrowing the content domain, a trade-off explicitly permitted when composite reliability and average variance extracted are satisfactory (Hair et al., 2022).

Item means fall between 3.15 and 3.44 on the four-point scale. The pattern is consistent with the mixed-image characterisation: safety and value for money receive the highest cognitive evaluations, while accessibility and general facility adequacy receive lower ratings, and the two lowest means in the instrument belong to the conative and loyalty items that ask respondents to give Yogyakarta priority over alternatives.

Table 4. Outer loadings, significance and item descriptive statistics

Construct and Indicator	Loading	t-statistic	Mean	SD
Cognitive image — COG1 (accommodation quality; tourism infrastructure)	0.770	35.32	3.29	0.70
Cognitive image — COG2 (adequacy of tourism facilities; general infrastructure)	0.749	31.20	3.22	0.77
Cognitive image — COG3 (accessibility and transport)	0.663	19.20	3.35	0.68
Cognitive image — COG12 (perceived safety; hospitality and security)	0.684	21.66	3.44	0.66
Cognitive image — COG13 (value for money)	0.668	19.50	3.40	0.68
Affective image — AFF1 (pleasant destination)	0.873	60.28	3.42	0.68
Affective image — AFF2 (relaxing destination)	0.852	48.57	3.23	0.79
Conative image — CON1 (intention to revisit)	0.853	42.54	3.28	0.73
Conative image — CON3 (priority for the next trip)	0.872	64.04	3.15	0.83
Destination loyalty — DES1 (will return)	0.782	31.26	3.22	0.76
Destination loyalty — DES2 (will recommend)	0.829	47.07	3.15	0.80
Destination loyalty — DES3 (preferred destination)	0.793	40.02	3.33	0.70

All loadings significant at $p < 0.001$ (bootstrapping, 5,000 subsamples). Scale range 1–4.

Table 5 reports internal consistency and convergent validity. Composite reliability ranges from 0.834 to 0.853 and rho_A from 0.659 to 0.759, both above the 0.70 requirement for the four-construct model with the exception of rho_A for the two-item constructs, which approach but do not reach that value. Cronbach's alpha is 0.657 for the two two-item constructs and 0.722 and 0.751 for the three- and five-item constructs. Alpha is a lower-bound estimate that is systematically deflated for short scales, and composite reliability and rho_A are the preferred coefficients in PLS-SEM (Hair et al., 2022); on those coefficients all four constructs are acceptable. Average variance extracted ranges from 0.501 to 0.744, so every construct explains more than half of the variance in its indicators and convergent validity is established.

Table 5. Construct reliability and convergent validity

Construct	Items	Cronbach's α	rho_A	Composite reliability	AVE
Cognitive image	5	0.751	0.759	0.834	0.501
Affective image	2	0.657	0.659	0.853	0.744
Conative image	2	0.657	0.658	0.853	0.744
Destination loyalty	3	0.722	0.724	0.844	0.643

Thresholds: composite reliability and rho_A ≥ 0.70; AVE ≥ 0.50.

Discriminant validity was assessed with three procedures and is reported in Table 6. Under the Fornell-Larcker criterion, the square root of the average variance extracted of each construct exceeds all of its correlations with the remaining constructs. Under the cross-loading criterion, every indicator loads most strongly on the construct it is assigned to. Under the heterotrait-monotrait criterion, all six ratios lie below the 0.90 threshold recommended for conceptually proximate constructs, with the highest value of 0.885 occurring between affective image and destination loyalty; the bootstrap confidence intervals of all six ratios exclude unity, which satisfies the inferential HTMT test (Henseler et al., 2015; Franke & Sarstedt, 2019). The affective-loyalty ratio nevertheless remains the closest to the boundary and is discussed in the limitations.

Table 6. Discriminant validity: Fornell-Larcker criterion and HTMT ratios

Construct	Cognitive image	Affective image	Conative image	Destination loyalty
Cognitive image	0.708	0.759	0.729	0.819
Affective image	0.529	0.863	0.813	0.885
Conative image	0.518	0.535	0.863	0.811
Destination loyalty	0.609	0.610	0.559	0.802

Values below the diagonal are latent variable correlations; diagonal values in the leading column position are the square roots of AVE; values above the diagonal are HTMT ratios. Upper bounds of the 95 per cent bootstrap confidence intervals for HTMT range from 0.835 to 0.990 and exclude 1.00.

3.5 Structural model, hypothesis testing and the equivalence of the two evaluative pathways

Collinearity among the predictors is not problematic: inner variance inflation factors range from 1.39 to 1.59, well below the conservative threshold of 3.3. Table 7 reports the path coefficients, bootstrap standard errors, t-statistics, confidence intervals and effect sizes for the seven hypotheses together with the total effects.

Table 7. Structural model results: direct, indirect and total effects

Hypothesis	Path	β	SE	t	p	95% CI	f^2	Decision
H1	Cognitive → Loyalty (direct)	0.326	0.047	7.00	<0.001	[0.235, 0.419]	0.141	Supported
H2	Affective → Loyalty (direct)	0.320	0.048	6.65	<0.001	[0.225, 0.414]	0.133	Supported
H3	Cognitive → Conative	0.327	0.047	7.00	<0.001	[0.239, 0.423]	0.121	Supported
H4	Affective → Conative	0.362	0.052	6.93	<0.001	[0.257, 0.463]	0.148	Supported
H5	Conative → Loyalty	0.218	0.046	4.79	<0.001	[0.127, 0.306]	0.062	Supported
H6	Cognitive → Conative → Loyalty	0.071	0.017	4.13	<0.001	[0.040, 0.108]	—	Supported
H7	Affective → Conative → Loyalty	0.079	0.021	3.83	<0.001	[0.041, 0.123]	—	Supported
—	Total effect of cognitive image	0.398	0.045	8.76	<0.001	[0.310, 0.487]	—	—

Hypothesis	Path	β	SE	t	p	95% CI	f^2	Decision
—	Total effect of affective image	0.399	0.048	8.39	<0.001	[0.302, 0.491]	—	—
—	Difference in total effects	0.002	0.088	0.02	0.984	[-0.175, 0.168]	—	Not significant

Bootstrapping with 5,000 subsamples, two-tailed. f^2 benchmarks: 0.02 small, 0.15 medium, 0.35 large.

All seven hypotheses are supported. Cognitive image and affective image each exert a significant direct effect on destination loyalty of almost identical magnitude, and each also influences conative image, which in turn influences loyalty. The two specific indirect effects are significant and share the sign of their corresponding direct effects, which classifies both as complementary partial mediation under the Zhao et al. (2010) typology. The variance accounted for is 17.9 per cent for the cognitive pathway and 19.8 per cent for the affective pathway, indicating that roughly one-fifth of each evaluative dimension's influence on loyalty is transmitted through explicit behavioural intention while the remainder operates directly.

The comparison of the two evaluative pathways is reported in two steps, because the two steps answer different questions. The first is the conventional difference test. The difference between the two total effects is 0.002 with a bootstrap standard error of 0.088, a 95 per cent confidence interval from -0.175 to 0.168, and p = 0.984. The data therefore provide no evidence that affective image dominates cognitive image in this setting. That statement is the correct reading of a non-significant result, and it is weaker than a claim of equality: absence of evidence for a difference is not evidence of the absence of a difference.

The second step addresses the stronger question through a two one-sided tests procedure (Lakens, 2017; Lakens et al., 2018), which requires an equivalence bound set on substantive rather than statistical grounds. The two total effects sum to 0.797, so the relative share of the two pathways is the quantity of managerial interest. A difference of 0.20 in standardised units shifts that share from 50:50 to approximately 63:37, which is the point at which a destination management organisation would have grounds to re-weight its allocation between emotional positioning and functional improvement; a smaller difference would not change any allocation such an organisation could realistically implement. The bound was therefore set at $\Delta = \pm 0.20$.

Applying the procedure, the larger of the two one-sided p-values is 0.012 and the 90 per cent confidence interval of the difference, from -0.147 to 0.138, lies entirely within the equivalence bounds. Equivalence is therefore established at that margin. At a tighter margin of ±0.10 equivalence is not established (p = 0.131), and the smallest bound the data can support is 0.147. The conclusion is consequently precise and explicitly limited: the total effects of cognitive and affective image on destination loyalty are statistically indistinguishable and equivalent within a margin of 0.20 standardised units, while a true difference of up to that magnitude cannot be excluded. Terms such as "equal" and "approximately balanced" are avoided in what follows. Within the mediator equation, affective image has the larger coefficient (0.362 against 0.327), but the difference is small relative to its standard error and is not interpreted.

The point estimates of the two total effects and their individual standard errors were independently verified in SmartPLS 4.0. The standard error of their difference (0.088) and the resulting equivalence tests were derived from a custom bootstrap procedure computed within each resample, since SmartPLS does not expose per-replicate bootstrap output required to compute the correlated standard error of a difference between two total effects.

4. Discussion

The results support the sequential logic of the Cognitive-Affective-Conative framework while qualifying two propositions that are frequently treated as settled. The first concerns the status of the conative dimension, the second the relative weight of cognition and affect in destinations whose image is internally inconsistent.

4.1 Conative image as a partial bridge

Both specific indirect effects are significant, and both operate alongside significant direct effects. Conative image therefore functions as a genuine transmission mechanism rather than as a terminal outcome of image formation, which is how it is treated in much of the empirical literature. The mediation is nevertheless partial and, on the variance accounted for, modest: approximately one-fifth of the influence of each evaluative dimension passes through explicit behavioural intention, and four-fifths reaches loyalty directly.

A related contribution is methodological. Conative image and attitudinal loyalty are defined in overlapping terms across the literature: both are commonly operationalised through revisit intention and recommendation, which creates a risk that the mediator and the outcome are measured with near-identical items. In the present instrument one conative item and one loyalty item were near-verbatim duplicates, and retaining both inflated the association between the two constructs beyond what any discriminant criterion could support. Removing the duplicated item resolved the problem and produced a heterotrait-monotrait ratio of 0.811 between mediator and outcome. The difficulty is longstanding rather than peculiar to these data, in the confirmatory test of the full CAC model by Agapito et al. (2013), the conative construct returned an average variance extracted of 0.379, below the conventional threshold, while the other constructs met it. Applied studies within the CAC framework nevertheless rarely report this boundary at all. Reporting it is a precondition for interpreting any mediated effect between the two constructs, because an untested overlap would render the estimated indirect path an artefact of shared item content rather than evidence of a psychological mechanism.

This pattern is theoretically coherent rather than anomalous. Attitude-behaviour models position intention as the proximal antecedent of behaviour, but the loyalty construct measured here is itself partly attitudinal, comprising stated preference and advocacy in addition to return intention. A substantial direct path from evaluation to loyalty is therefore plausible because tourists' loyalty can also develop through mechanisms such as place attachment, satisfaction, and prior experience, rather than solely through explicit behavioural intention (Dang & Weiss, 2021; Li et al., 2020; Stylos & Bellou, 2019). This supports treating conative intention as one pathway to destination loyalty rather than its only antecedent.

4.2 No evidence of affective dominance in a mixed-image setting

The most consequential finding is negative, and its scope is bounded by the equivalence test rather than by a non-significant p-value alone. The total effects of cognitive and affective image on loyalty are 0.398 and 0.399 respectively; the difference between them is not significant, and it is further shown to lie within an equivalence margin of 0.20 standardised units. The affective-dominance proposition, which holds that emotional attachment compensates for recognised functional deficiencies, therefore receives no support in this setting: a difference large enough to justify prioritising one pathway over the other in practice can be ruled out, while a smaller difference cannot. The claim advanced here is that no dominance is detectable within the resolution of this design, not that the two effects are identical.

An emotional-compensation account would predict that where functional attributes are contested, tourists discount them and rely on affect. The present results indicate that a competing mechanism operates with at least comparable force: where accessibility, facility adequacy and value are genuinely uncertain, they become decision-relevant rather than negligible. The retained cognitive indicators are informative in this respect. Item purification removed the natural, cultural and heritage attributes on which Yogyakarta is uniformly and strongly evaluated, and retained the functional-utilitarian attributes on which evaluations diverge, so that the retained cognitive indicators primarily represent functional attributes such as infrastructure, accessibility, safety, and value for money, rather than attraction-related attributes. These dimensions are widely recognised as distinct components of cognitive destination image in previous research (Kaur et al., 2016; Rahman et al., 2022). Attributes on which nearly all visitors agree carry little discriminating information about loyalty; attributes on which visitors disagree carry a great deal. The comparability

of the two pathways is thus not a null result about emotion but a substantive result about which cognitive content matters in a mixed-image destination.

The pattern is not unique to Yogyakarta. Comparable contextual conditions have been reported at Lake Toba, another major Indonesian destination where strong natural and cultural attractions coexist with concerns regarding infrastructure, cleanliness, congestion, and supporting services (Tarigan et al., 2020). This suggests that functional destination attributes may remain relevant even in destinations with strong experiential and emotional appeal. Convergent evidence comes from outside Indonesia as well. In a study of a historic town in Chengdu, Zhou et al. (2024) found that cognitive image played the more dominant role in shaping tourists' memorable experience, ahead of affective image; related evidence also shows that cognitive destination image can influence loyalty through more than one pathway. Yu and Hwang (2019) modelled cognitive image as a direct antecedent of both affective image and tourist loyalty, indicating that functional evaluations may contribute to loyalty directly as well as through emotional responses. These convergences invite an explanation, and one is offered here explicitly as an interpretation rather than as a result. Image heterogeneity, rather than the intrinsic potency of emotion, may govern the relative weight of the two dimensions: the cognitive pathway would strengthen as within-destination variance in functional evaluations increases, which would reconcile the present estimates with the affective-dominance results reported from destinations whose images are comparatively homogeneous and whose functional evaluations consequently vary little across visitors. The status of that interpretation must be stated plainly. It is a conjecture that the present design cannot test, because a single destination provides no variation in the proposed moderator, and it currently rests on the comparison of published estimates across studies that differ in many respects besides image heterogeneity. Testing it requires a design in which several destinations of differing image heterogeneity are sampled with a common instrument and the destination-level index enters as a second-level moderator. Until such evidence exists, the conjecture should be read as a hypothesis generated by this study rather than as one supported by it.

5. Conclusion

This study examined whether conative image mediates the influence of cognitive and affective image on destination loyalty in a mixed-image destination, using 529 usable responses from domestic tourists in Yogyakarta and PLS-SEM with 5,000 bootstrap subsamples. After systematic screening and item purification, the measurement model satisfied indicator reliability, internal consistency, convergent validity and all three discriminant validity criteria, and the structural model satisfied the collinearity, predictive relevance and fit requirements. All seven hypotheses were supported: cognitive and affective image influence loyalty both directly and indirectly through conative image, which constitutes complementary partial mediation with approximately one-fifth of each total effect transmitted through behavioural intention. The model explains 36.3 per cent of the variance in conative image and 51.6 per cent in destination loyalty. Contrary to the affective-dominance proposition, the total effects of the two evaluative dimensions are statistically indistinguishable, which and equivalent within a margin of 0.20 standardised units, indicates that in destinations where functional evaluations are genuinely contested those evaluations retain a weight that cannot be shown to be smaller than that of emotional response. For destination managers the implication is that neither lever should be prioritised over the other on the basis of these estimates, and that functional improvement should be concentrated on the attributes where visitor assessments diverge rather than on those already uniformly praised.

6. References

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