



MEASURING THE TOURISM DESTINATION COMPETITIVENESS OF DA LAT: AN INTEGRATED SUPPLY-DEMAND APPROACH WITH THE SEM STRUCTURAL MODEL

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Abstract. This study measures the tourism destination competitiveness (TDC) of Da Lat using an integrated supply–demand perspective and a second-order Structural Equation Modeling (SEM) approach with expert-based data. It addresses persistent gaps in the TDC literature, including the lack of consensus on determinants, limited attention to developing-country contexts, and the separation of supply- and demand-side perspectives. The research follows an exploratory sequential mixed-method design that combines a systematic literature review, expert group discussions, a Delphi study (36 experts, two rounds), a pilot survey, and a large-scale expert survey (n = 700). The study develops and validates a multidimensional measurement scale comprising 12 factors, including a newly introduced construct, “Destination Uniqueness”. The results indicate that safety and security, public amenities, destination uniqueness, natural resources, and demand-side factors exert the strongest positive impacts on Da Lat’s TDC. Cultural heritage has a moderate effect, while infrastructure, destination management, human resources, environmental sustainability, tourism products and services, and the business environment show weaker but statistically significant influences. The formal inclusion and empirical validation of destination uniqueness, capturing Da Lat’s “Little Paris” identity and distinctive experiential attributes, constitute a key contribution of the study. The expert-based integrated approach provides a context-sensitive framework that combines supply conditions and demand expectations and offers a basis for evidence-based policy and management decisions in Da Lat and comparable destinations.

Keywords: destination competitiveness; Da Lat; SEM; supply–demand framework; sustainable tourism development.

1. Introduction

In the context of intensifying competition among tourism destinations, the analysis and assessment of tourism destination competitiveness (TDC) are necessary for supporting economic development and improving community well-being [1, 2]. Destination competitiveness has become a policy concern in both developed and developing economies, as tourism contributes to regional development and resilience. Since the 1990s, TDC has been widely examined, yet several gaps remain: there is no consensus on measurement approaches, no commonly accepted set of determinants and limited attention to developing countries [1, 3]. Conceptually, destination competitiveness is a multidimensional construct that requires a systemic perspective to capture interactions among economic, social, cultural, and environmental dimensions, which makes its measurement more complex than in many other sectors [4-6].

A key source of divergence in empirical findings is the persistent separation between supply-side (managers, experts) and demand-side (tourists) perspectives. Supply-side stakeholders tend to emphasize management, infrastructure and policy whereas tourists focus on experiences, perceptions, and affective attributes. These perspectives are rarely integrated, which leads to inconsistencies and partial interpretations [7, 8]. Although several authors recommend combining both perspectives, empirical applications of this integrated approach are still limited [9, 10]. In Vietnam, most studies focus predominantly on either the supply or the demand side and are fragmented in terms of methodology with a lack of standardized scales adapted to the national institutional and market context [11, 12]. In addition, under the pressures of digital transformation and sustainable development, traditional measurement scales do not fully capture changes in tourist behavior, the level of technology adoption, or environmental constraints [13]. Against this background, using experts as survey respondents is expected to provide a more comprehensive and synthesized view of TDC as experts can simultaneously reflect policy, management, market trends, and destination-specific constraints.

Da Lat, the main tourism center of Lam Dong Province and an emerging growth pole in the South Central Coast region, is a relevant case for applying an integrated framework to assess destination competitiveness based on expert judgement. Recent strategic plans set a vision for Lam Dong to become a “Green Paradise” by 2030 and a high-quality tourism center in Vietnam and Southeast Asia. This vision emphasizes green and sustainable tourism, preservation of ethnic cultures, protection of natural resources and stronger regional connectivity. The province is expanding its tourism product portfolio based on local

advantages, including ecological tourism, wellness tourism, sports and adventure tourism, agricultural tourism, cultural festivals and MICE. Tourism enterprises are encouraged to implement digital transformation, use clean energy and participate in initiatives such as plastic waste reduction and community-based tourism. The province attracts investors to develop large-scale service, entertainment and resort complexes, invests in infrastructure, particularly transport connections to key tourism areas and attractions. These efforts aim to increase destination attractiveness, lengthen visitors' stays, raise tourist spending and strengthen the role of tourism in the provincial economy [14]. At the same time, institutional issues such as the suspension of agricultural tourism licensing due to the absence of specific regulations and guidelines [15] indicate a mismatch between development objectives and management capacity with potential implications for actual competitiveness. Expert respondents who operate at the intersection of policy, business, and practice, are in a position to evaluate these dynamics in a holistic manner.

These developments underline the need for a comprehensive but context-sensitive framework for assessing destination competitiveness that integrates supply and demand considerations, incorporates sustainability and digital transformation and reflects Da Lat's specific characteristics. In this study, such integration is achieved indirectly through experts' overall assessments which are informed by their experience with both management and market behavior. Structural equation modeling (SEM) using expert survey data allows examination of relationships among factors and identification of priorities for destination management from a system-wide perspective.

This study aims to develop and empirically test a multidimensional model of destination competitiveness for Da Lat using expert-based data and quantitative analysis. The reliance on expert respondents is intended to obtain an integrated and overall view of TDC that captures institutional, managerial, market and environmental dimensions. The findings are expected to contribute to the literature on destination competitiveness and to inform policy and management decisions for Da Lat and comparable destinations facing rapid changes in tourism markets and operating conditions.

2. Theoretical foundation

2.1. Conceptualizing destination competitiveness

Tourism destination competitiveness is commonly defined as a destination's ability to attract and retain tourists, maintain its market share and pursue long-term development. It

reflects the effective use of resources and the capacity to respond to market demands. The concept has gradually shifted from abstract theoretical models to a more applied focus on assessing the competitive position of specific destinations. This shift involves the use of multiple perspectives, analytical tools and indicator systems. [10, 16, 17].

2.2. Measurement

The literature distinguishes two main approaches to measuring destination competitiveness: demand-side and supply-side perspectives. The demand-side approach uses data collected from tourists and emphasizes their experiences and perceptions as key determinants of competitiveness [4]. This approach has been criticized for limited depth because tourists often lack comprehensive information about destination attributes, competing destinations and underlying institutional or managerial conditions [17]. The supply-side approach relies on the views of stakeholders such as businesses, government agencies and local communities. Advocates of this approach argue that these stakeholders possess more specialized knowledge and practical experience which can support a more grounded assessment of competitiveness [9, 17]. It also facilitates the inclusion of a wider set of factors, including destination management, supporting infrastructure and policy frameworks.

However, assessments based solely on either tourists or individual stakeholder groups may not fully capture the complexity of destination competitiveness or ensure coverage of all relevant criteria. In this context, expert-based evaluation becomes important. Experts, by virtue of their professional experience and exposure to both market behavior and management practice, are able to consider supply-side conditions (governance, infrastructure, investment, human resources) together with demand-side aspects (visitor satisfaction, perceived value, image, and trends in demand). Using experts as respondents therefore helps to integrate both perspectives in a single assessment and to ensure that the evaluation criteria are comprehensive and consistent with the conceptual framework of destination competitiveness.

2.3. Towards an integrated approach

Despite the growing volume of research, there is still a clear divide between supply-side and demand-side perspectives and most studies adopt one approach rather than combining both. This tendency leads to inconsistent results and the absence of a shared measurement framework. Studies that compare the two perspectives have identified substantial differences in how stakeholder groups perceive competitiveness, but the implications of these differences are not yet fully clarified [9, 18]. At the same time, the variety of components and indicators used

across existing models makes comparison and synthesis difficult and reduces the practical value of competitiveness assessments. Popular diagnostic tools such as Importance - Performance Analysis are useful for identifying priorities but they often simplify the multidimensional nature of destination competitiveness.

In response to these limitations, several authors propose an integrated approach that incorporates both supply-side and demand-side perspectives [10]. The supply - demand analysis of competitiveness is an example of this orientation, as it enables direct comparison of perceptions and the identification of perception gaps that can guide more focused management interventions [17].

Overall, destination competitiveness can be viewed as a complex, multidimensional construct that requires integrated measurement frameworks. Reliance on a single perspective increases the risk of partial or biased assessments. Future studies need to develop and test comprehensive models that connect supply and demand perspectives, thereby improving the validity and usefulness of competitiveness evaluations for strategic destination management.

2.4. Hypotheses on constituent factors of destination competitiveness

Destination competitiveness is widely regarded as a multidimensional construct that requires the integration of supply-demand perspectives, sustainability and digital transformation [10, 17, 19, 20]. At the same time, the diversity of theoretical models and empirical results indicates continuing difficulties in building a unified measurement framework and calls for a careful examination of the constituent factors and their assumed effects.

Ritchie & Crouch [19] identify core resources, infrastructure, governance, and the micro-environment as key drivers of sustainable competitive advantage. Their framework has been criticized for limited flexibility in adapting to specific local contexts and rapidly changing market conditions. Dwyer and Kim [10] distinguish between inherited and created resources and incorporate demand conditions and situational factors, thereby drawing attention to supply-demand interactions and service quality. Hassan broadens the discussion by stressing comparative advantage, demand orientation and environmental commitment and thus points to the relevance of ecological sustainability and market fit [20]. Despite these contributions, there is still no agreement on which factors should be included and how they should be measured which remains a major constraint [17].

A synthesis from Ritchie & Crouch [19], Dwyer & Kim [10], Bui Thi Tam et al. [21], Sang & Son [22], Goffi et al. [5], and Novais et al. [17] suggests eleven core factors that shape tourism

destination competitiveness. These factors are: (1) natural resources; (2) cultural heritage; (3) infrastructure; (4) business environment; (5) destination management; (6) demand-related factors; (7) environmental sustainability; (8) tourism products and services; (9) safety and security; (10) public utilities and service quality and (11) human resources. They operate as elements of an interactive system and generate both direct and indirect effects on competitiveness with the strength of each effect depending on the destination's characteristics and stage of development [10]. Empirical assessment needs to combine supply and demand perspectives so that tourist expectations and perceptions, as well as supply capabilities are represented. It also needs to account for the role of infrastructure, governance, sustainability and technology in improving the visitor experience, lowering transaction costs, increasing perceived value and strengthening market trust [5, 17, 22]. Such an approach supports the identification of policy priorities, the design of management and investment measures grounded in evidence and the alignment of short-term actions with long-term competitiveness and digital transformation objectives.

Empirical research shows that natural resources, cultural heritage, infrastructure and destination management affect competitiveness to different degrees, depending on contextual conditions and development stages [10, 17, 23]. Novais et al. [17], for example, report notable differences between supply-side and demand-side perceptions, implying that one-dimensional assessments may be incomplete or biased. Importance - Performance analyses also indicate that infrastructure and service quality are often priority areas for improvement while safety, sustainability and digital transformation are increasingly seen as strategic sources of differentiation [10, 23].

In this study, destination competitiveness is conceptualized as a multidimensional construct composed of eleven factors: (H1) natural resources, (H2) cultural heritage, (H3) infrastructure, (H4) business environment, (H5) destination management, (H6) demand-side factors (tourists' perceptions, expectations, and evaluations), (H7) environmental sustainability, (H8) tourism products and services, (H9) safety and security, (H10) public utilities and services and (H11) tourism human resources. Each factor is hypothesized to have a positive effect on the competitiveness of Da Lat as a tourism destination. On the basis of the literature review and these hypotheses, the study proposes an integrated model (Figure 1) that identifies the constituent factors of tourism destination competitiveness and reflects its multidimensional character, as well as the need to incorporate supply - demand perspectives, sustainability and digital transformation.

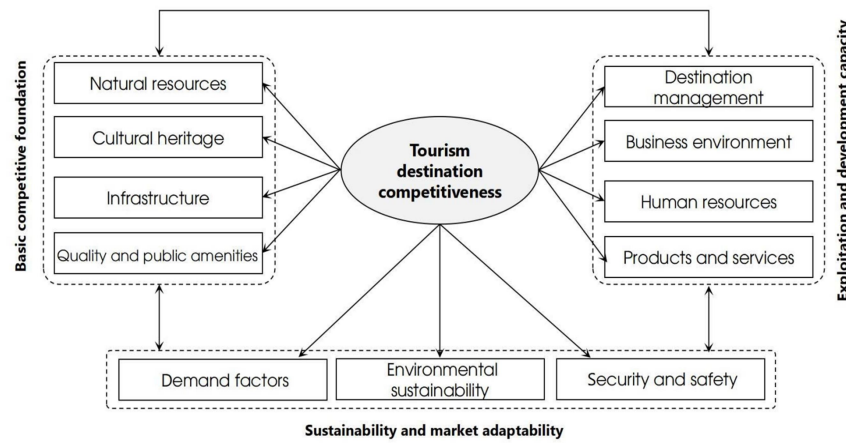


Figure 1. Model of factors determining the destination competitiveness of Da Lat

Source: Proposed by the authors, 2025

3. Research methodology

This study adopts a mixed-method design with an exploratory sequential approach, combining qualitative methods for scale development and quantitative methods for model testing with experts as the primary respondents. The research process consists of eight stages that follow established recommendations for scale construction and validation by DeVellis and Thorpe [24], Boateng & et al. [25], Hinkin [26] and Nunkoo & Ramkissoon [27]. The stages include: defining the research problem and measurement constructs; conducting a systematic literature review and synthesizing the foundational frameworks of Ritchie and Crouch [19] and Dwyer & Kim [10] are synthesized. Third, an integrated theoretical framework with 11 factor groups is developed. Fourth, an initial scale of 55 items is proposed, using a 5-point Likert format and wording adapted to the local context. Fifth, expert group discussions are organized ($n = 6$, purposive sampling) to ensure content validity. Sixth, a Delphi study is implemented ($n = 36$, 2–3 rounds) with consensus defined as at least 75%, a median of at least 4.0, and an IQR of at most 1.0. Seventh, a preliminary expert survey is conducted to assess reliability and validity using Cronbach's Alpha and Exploratory Factor Analysis (EFA). Finally, a large-scale formal expert survey is carried out. This last phase includes descriptive statistics, EFA, and normality tests in SPSS, as well as Confirmatory Factor Analysis (CFA) and Structural Equation Modeling

(SEM) in AMOS with 1,000 bootstrap iterations at a 95% confidence interval to evaluate parameter stability.

The sampling strategy was designed according to each phase to ensure representativeness and data quality. For the Delphi study, purposive sampling was used to select 36 experts meeting the criteria of having at least 5 years of experience, having recently visited Da Lat and possessing expertise in tourism management/research with a preference for those holding a Master's degree and representing diverse stakeholders. The sample structure was composed of 50-60% academics, 15-20% government managers, 20-25% business representatives and 5-10% associations/organizations [26]. The preliminary survey included 300 respondents (150 expanded experts - purposive sampling; 150 tourists - convenience sampling at key locations, with criteria of having visited Da Lat at least once in the past 2 years, aged 18–65, and a structure of 70% domestic and 30% international), exceeding the minimum threshold for Exploratory Factor Analysis (EFA) as per Hair & et al. [28, 29]. The formal survey targeted 750 observations based on the principle of at least 5 times the number of variables and an optimal ratio of 10:1 for complex models [29]. With 56 observed variables, the minimum was set at 560, increased to 750 to enhance reliability, applying the sample size formula $Z = 1.96$; $p = 0.5$; $E = 0.05$ for a minimum of 384 [30]. After data cleaning, 700 valid observations were analyzed. Data collection combined online and in-person methods, using controlled random sampling. When convenience sampling was necessary, distribution was based on demographics and cross-checked with overall data to verify representativeness [24].

Data analysis included: reliability testing using Cronbach's Alpha (excluding variables with low item-total correlation and examining changes in Alpha upon item removal); scale validity testing through EFA (preliminary structure) and Confirmatory Factor Analysis (CFA) (convergent validity via standardized loadings, AVE; discriminant validity via Fornell–Larcker, HTMT; model fit via CFI, TLI, RMSEA, SRMR); Structural Equation Modeling (SEM) to test causal hypotheses, evaluate direct and indirect effects, and use 1,000 Bootstrap iterations with a 95% confidence interval to check estimate stability; and multi-group SEM to test measurement equivalence (configural, metric, scalar) and quantify parameter differences between supply and demand sides. The study also applied measures to control bias and ensure data quality (information validation, response time monitoring, reverse-coded questions) and proposed stratified sampling for future research to enhance representativeness and generalizability.

4. Research results

4.1. Results of expert group discussions on the factors constituting the tourism destination competitiveness of Da Lat

Expert group discussions reached a strong consensus that Da Lat's unique competitive advantage stems from its temperate climate, French architecture and indigenous culture, forming the irreplaceable "Little Paris" brand in Vietnam (CG02, CG05, CG27, CG07, CG22). The study enriches the model by adding the "Destination Uniqueness" factor, comprising four new observed variables (DD1: The uniqueness of the travel experience in Da Lat; DD2: The unique blend of nature, French architecture and local culture in Da Lat; DD3: The image of a 'miniature Paris' and Da Lat's identity create a special appeal for me; DD4: The romantic atmosphere and unique emotions that Da Lat offers). Five unsuitable variables (KD2: The stability and development of Da Lat's overall economic situation; QL3: The effectiveness of public-private cooperation in Da Lat's tourism development; YC5: The rate of tourists returning to Da Lat; TI3: Accessibility of facilities for people with disabilities in Da Lat; BV4: The level of encouragement for community participation in sustainable tourism planning) were removed due to complexity or limited evaluability.

The model was refined into 12 factor groups (Figure 2), balancing traditional elements like infrastructure and natural resources with distinctive aspects such as environment and sustainability (CG02, CG05, CG11, CG07), thus ensuring both comprehensiveness and practical relevance for Da Lat's tourism context.

The research process began with a comprehensive review of the literature, leading to the proposal of 11 core hypotheses that collectively define the multidimensional nature of tourism destination competitiveness. These hypotheses cover a wide spectrum of factor from natural resources, cultural heritage, infrastructure and business environment to management effectiveness, demand-side attributes, environmental sustainability, product diversity, safety, public services and human resources. Each hypothesis is critically grounded in theory and empirically validated, ensuring the model's robustness and relevance across different tourism contexts.

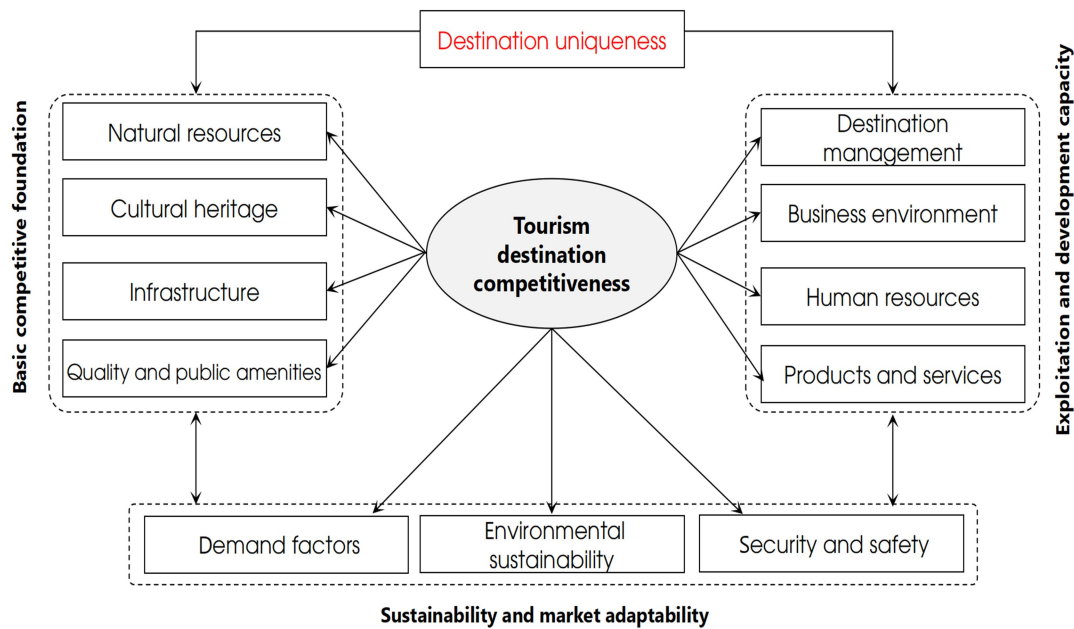


Figure 2. Model for assessing the tourism destination competitiveness of Da Lat

Source: Results of expert group discussions, 2025

However, through expert group discussions specifically focused on Da Lat, an additional factor was identified: “Destination Uniqueness”. Experts unanimously agreed that Da Lat’s distinctive competitive advantage lies in its harmonious combination of temperate climate, French architecture and local culture which together create the iconic “Little Paris” brand an irreplaceable identity in Vietnam’s tourism landscape. To reflect this, the model was enriched by adding the “Destination Uniqueness” factor, measured by four new observed variables (DD1–DD4) that capture the unique travel experience, the blend of nature, architecture, culture, brand storytelling and the romantic atmosphere unique to Da Lat.

At the same time, five variables deemed unsuitable due to complexity or limited evaluability were removed, streamlining the model for greater clarity and practical application. As a result, the final framework consists of 12 balanced factor groups, integrating both traditional elements (such as infrastructure and natural resources) and distinctive features (such as environmental sustainability and uniqueness), thereby ensuring comprehensive coverage and practical relevance for Da Lat’s tourism competitiveness assessment.

This logical progression from literature synthesis empirical validation to expert-driven refinement demonstrates a rigorous and adaptive research approach. It highlights the importance of contextualizing models to local realities and leveraging stakeholder insights for model enhancement. Proposed hypothesis H12: Destination uniqueness has a positive impact on the competitiveness of Da Lat as a tourism destination.

4.2. Results of developing the scale for assessing the tourism destination competitiveness of Da Lat using the Delphi method

The Delphi study (36 experts; 2 rounds) achieved high consensus and good representation (52.8% academics; 16.7% government managers; 25% businesses; 5.6% associations). Round 1 accepted 32 variables (Median ≥ 4.0 ; IQR ≤ 1.0 ; CV ≤ 0.3), eliminated 4 variables (KD1, QL1, AT4, NH3), and adjusted 14 variables. Round 2 eliminated 5 variables with low consensus (40.5-54.1%) and accepted 24 variables (75.7-97.3%), with “Da Lat’s Appeal” (YC5_new) standing out at 97.3%. The process concluded with a scale of 56 variables across 12 factors, including 20 newly developed variables (32.1%) and 36 inherited variables (67.9%), fully reflecting competitive aspects and local identity. The preliminary survey of 300 respondents (96% valid response rate) showed high-scale reliability: composite Cronbach’s Alpha ranging from 0.796 to 0.912 and Item-Rest Correlation ≥ 0.429 , meeting the thresholds of Nunnally & Bernstein [31].

Table 1. Results of the delphi study on the scale for assessing the tourism destination competitiveness of Da Lat

Factor	Adjusted scale	Reference source
Natural resources		
TN1	The climate in Da Lat is suitable for year-round tourism activities.	[17, 22]
TN2	Da Lat has many attractive natural landscapes (mountains, pine forests, lakes).	[17, 23]
TN3	I feel that the natural environment in Da Lat is fresh and clean.	[23]
TN4	Green areas and nature reserves around Da Lat make a good impression on me.	[21, 23]
TN5	I find Da Lat’s natural scenery to be special and unique compared to other places.	[10]

Factor	Adjusted scale	Reference source
Cultural heritage		
VH1	I perceive the diversity of Da Lat's culture through activities, festivals, customs, or local products.	[17, 23]
VH2	The value and appeal of historical sites in Da Lat.	Delphi 2
VH3	The distinctive features of French architecture in Da Lat.	Delphi 2
VH4	I perceive authenticity and historical value at cultural heritage sites in Da Lat.	[22, 23]
VH5	The diversity and richness of Da Lat's local cuisine.	[21]
Infrastructure		
HT1	Da Lat offers various types of accommodation suitable for tourists' needs.	[17, 22]
HT2	Quality of transportation services to and within Da Lat.	[21, 23]
HT3	Quality of transport infrastructure and vehicles in Da Lat.	Delphi 2
HT4	Coverage and quality of communication systems and wifi in Da Lat.	[22, 23]
HT5	Quality and diversity of food and beverage services in Da Lat.	[17, 22]
Quality and public amenities		
TI1	Cleanliness and beautiful landscapes at tourist sites in Da Lat.	[17, 22]
TI2	Tourist sites in Da Lat are well maintained in terms of hygiene.	[23]
TI4	I feel secure about accessing medical services when traveling in Da Lat.	Delphi 2
TI5	Tourism support services in Da Lat are easily accessible.	Delphi 2
Destination management		
QL1	Convenience in visiting tourist sites in Da Lat.	Delphi 2
QL2	Clarity of Da Lat's image and reputation.	Delphi 2
QL3	Connectivity among tourism services in Da Lat.	Delphi 2
QL4	Completeness and accessibility of information and guidance for	[22, 23]

Factor	Adjusted scale	Reference source
	tourists in Da Lat.	
QL5	I feel there is coordination among tourism areas in Da Lat.	[23]
QL6	Da Lat is developing while maintaining its distinctive features.	Delphi 2
Business environment		
KD1	Quality of services provided by tourism businesses in Da Lat.	Delphi 2
KD2	Reasonable prices for tourism services in Da Lat.	Delphi 2
KD3	Level of technology application in tourism services in Da Lat.	Delphi 2
KD4	I see a variety of service options and competition among tourism businesses in Da Lat.	[21]
KD5	Convenience of banking and financial services for tourism in Da Lat.	[17, 23]
Human resources		
NL2	Honesty and reliability of tourism staff in Da Lat.	[21]
NL3	Dedication and professionalism of tourism staff in Da Lat.	Delphi 2
NL4	Speed and quality of service provided by tourism staff in Da Lat.	[22]
Tourism products and services		
SP1	Diversity and quality of entertainment activities in Da Lat.	[17, 21]
SP2	The attractiveness of festivals and cultural events in Da Lat.	Delphi 2
SP3	The richness of nightlife and evening entertainment activities in Da Lat.	[17, 22]
SP4	Diversity of shopping opportunities with many signature products in Da Lat.	[17, 22]
SP5	The level to which tourism service quality in Da Lat meets expectations.	[17]
SP6	Quality of online room/tour booking services in Da Lat.	Delphi 2
Demand-side factors		

Factor	Adjusted scale	Reference source
YC1	Reasonableness and competitiveness of tourism service prices in Da Lat.	[17, 22]
YC2	Friendliness and hospitality of Da Lat residents.	[17, 22]
YC3	Broad recognition of Da Lat's image and brand.	[17]
YC4	Foreign language proficiency of tourism staff in Da Lat.	[22]
YC5	The attractiveness of Da Lat.	Delphi 2
Environmental sustainability		
BV1	Environmental protection activities in Da Lat are well regarded.	[22]
BV2	Regulations on natural environmental protection in Da Lat are strictly enforced.	[23]
BV3	Environmental friendliness of accommodation facilities in Da Lat.	Delphi 2
BV4	Environmental protection awareness within Da Lat's tourism community.	Delphi 2
BV6	Environmental protection awareness among tourism services in Da Lat.	Delphi 2
Security and safety		
AT1	High level of safety for tourists in Da Lat.	[17, 21]
AT4	Safe and stable environment in Da Lat.	Delphi 2
AT5	Seriousness of safety measures for tourism in Da Lat.	[17]
Destination uniqueness		
DD1	The uniqueness of the travel experience in Da Lat.	Group discussion, Delphi 2
DD2	The unique blend of nature, French architecture, and local culture in Da Lat.	Group discussion, Delphi 2
DD3	The image of a 'miniature Paris' and Da Lat's identity create a special appeal for me.	Group discussion, Delphi 2

Factor	Adjusted scale	Reference source
DD4	The romantic atmosphere and unique emotions that Da Lat offers.	Group discussion, Delphi 2

Source: Delphi study results, 2025

4.3. Assessment of the scale for tourism destination competitiveness in Da Lat

Reliability assessment of the research scale

Cronbach's Alpha reliability analysis was conducted on 288 samples across 12 scales (TN, VH, HT, TI, QL, KD, NL, SP, YC, BV, AT, DD) show Cronbach's Alpha (CA) values ranging from 0.796 (NL) to 0.912 (BV), exceeding the 0.7 threshold with item-rest correlations from 0.551 (TN4) to 0.845 (BV6), above the 0.3 benchmark [31], indicating excellent scale quality and positive contribution of observed variables.

Structural assessment of the scale model

Exploratory Factor Analysis (EFA) on the sample (n = 288) indicates the data fully meet the requirements for factor analysis. The KMO value is 0.816 (above the minimum threshold of 0.6), Bartlett's test p-value <0.001, and the observation-to-variable ratio of 5.1:1 ensure data stability and suitability. Twelve factors were extracted with Eigenvalues >1, explaining a total of 68.827% of variance, exceeding the recommended 60%. Varimax rotation provided a more balanced variance distribution among factors, indicating a statistically reasonable scale structure.

Table 2. Results of Exploratory Factor Analysis (EFA)

Rotated Component Matrix ^a												
	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
BV6	0.873											
BV2	0.846											
BV3	0.842											
BV4	0.808											
BV1	0.793											

QL5		0.841										
QL3		0.756										
QL1		0.732										
QL4		0.719										
QL2		0.709										
QL6		0.697										
SP3			0.789									
SP1			0.742									
SP6			0.738									
SP5			0.738									
SP4			0.721									
SP2			0.704									
HT1				0.812								
HT3				0.802								
HT5				0.789								
HT2				0.768								
HT4				0.767								
YC3					0.857							
YC4					0.844							
YC2					0.832							
YC1					0.769							
YC5					0.749							
KD4						0.872						
KD5						0.839						
KD3						0.771						
KD2						0.732						
KD1						0.716						
VH5							0.872					

VH2							0.850					
VH1							0.798					
VH3							0.750					
VH4							0.672					
TN5								0.816				
TN1								0.802				
TN2								0.737				
TN4								0.689				
TN3								0.604				
DD4									0.835			
DD1									0.811			
DD2									0.803			
DD3									0.789			
TI5										0.813		
TI2										0.796		
TI1										0.792		
TI4										0.774		
AT1											0.845	
AT4											0.843	
AT5											0.835	
NL2												0.837
NL3												0.820
NL4												0.773
KMO = 0.816, Chi-Square=9394.016, df=1540, Sig.=0,000 <i>Rotation converged in 7 iterations</i> Source: Authors analysis from data, 2025												

The variables were clearly grouped into the categories BV, QL, SP, HT, YC, KD, VH, TN, DD, TI, AT and NL. This classification is consistent with the theoretical framework and is

straightforward to interpret. It provides an appropriate basis for the subsequent CFA and SEM analyses.

4.4. Assessment of the constituent factors of tourism destination competitiveness in Da Lat

Survey sample information

The information on the survey sample indicates that the data are relatively representative and reliable. Out of a total of 750 questionnaires, 700 were valid (a rate of 93.3%), meeting the sample size requirements for complex analytical models and helping to reduce sampling bias. In terms of sample quality, the expert group has a relatively strong professional background (63.24% with a university degree and 25.29% with a postgraduate degree) with an occupational structure consistent with the research focus (experts in tourism enterprises: 40.59%). In addition, their level of practical understanding of the destination is quite high (86.76% have visited Da Lat more than five times) which provides a deeper perspective on the destination.

Results of measurement model evaluation

The evaluation of the measurement model shows that the scale attains adequate reliability and measurement validity. For internal reliability, Cronbach's Alpha for all 12 scales is at least 0.800, with QL = 0.909, TN = 0.875, and SP = 0.864. The Item-Rest Correlations mostly range from 0.538 to 0.803, which is within the recommended interval and indicates acceptable consistency without substantial redundancy in content. Exploratory Factor Analysis (EFA) satisfies data adequacy conditions with KMO = 0.827 and Bartlett's Sig. = 0.000. The analysis extracts 12 factors that explain 65.41% of the variance, exceeding the 50% threshold and suggesting a relatively clear and stable latent structure.

Confirmatory Factor Analysis (CFA) provides additional evidence of convergent validity and reliability, with CR values between 0.804 and 0.910 and AVE values between 0.501 and 0.654, all meeting common criteria. Discriminant validity is supported because MSV is lower than AVE. The model fit indices reach acceptable levels (CMIN/DF = 2.073, CFI = 0.918, TLI = 0.911, RMSEA = 0.039, GFI = 0.874), indicating that the theoretical model is reasonably consistent with the observed data. The standardized factor loadings are mostly at least 0.70 (from 0.665 to 0.885), suggesting that the indicators explain their corresponding constructs to a satisfactory degree.

Overall, the quantitative results from the expert sample of $n = 700$ indicate that the scale achieves adequate reliability, a clear structure, acceptable convergence, sufficient discrimination, and a reasonably good model fit. These findings provide a suitable basis for

applying Structural Equation Modeling (SEM) to examine causal relationships in the subsequent stage.

Table 3. Results of the reliability and validity analysis of the scale (n = 700)

Scale	Item	Item-Rest Correlation	Factor loading	Cronbach's Alpha	CR	AVE	MSV
TN	TN1	0.593	0.706	0.875	0.878	0.593	0.178
	TN2	0.721	0.849				
	TN3	0.729	0.839				
	TN4	0.803	0.882				
	TN5	0.684	0.771				
VH	VH1	0.700	0.811	0.859	0.864	0.561	0.142
	VH2	0.619	0.726				
	VH3	0.748	0.819				
	VH4	0.662	0.809				
	VH5	0.687	0.84				
HT	HT1	0.690	0.801	0.855	0.859	0.552	0.028
	HT2	0.697	0.818				
	HT3	0.721	0.835				
	HT4	0.685	0.802				

Scale	Item	Item-Rest Correlation	Factor loading	Cronbach's Alpha	CR	AVE	MSV
TI	HT5	0.569	0.726	0.805	0.808	0.514	0.178
	TI1	0.682	0.822				
	TI2	0.670	0.771				
	TI4	0.575	0.801				
	TI5	0.564	0.725				
QL	QL1	0.768	0.859	0.909	0.91	0.627	0.073
	QL2	0.763	0.849				
	QL3	0.760	0.835				
	QL4	0.724	0.794				
	QL5	0.715	0.785				
	QL6	0.756	0.843				
KD	KD1	0.553	0.665	0.825	0.831	0.501	0.052
	KD2	0.619	0.774				
	KD3	0.622	0.793				
	KD4	0.559	0.694				
	KD5	0.761	0.885				
NL	NL2	0.598	0.829	0.800	0.804	0.58	0.081
	NL3	0.646	0.833				

Scale	Item	Item-Rest Correlation	Factor loading	Cronbach's Alpha	CR	AVE	MSV
	NL4	0.695	0.855				
	SP1	0.597	0.69				
	SP2	0.630	0.77				
SP	SP3	0.634	0.752	0.864	0.87	0.528	0.081
	SP4	0.654	0.761				
	SP5	0.781	0.874				
	SP6	0.689	0.793				
	YC1	0.670	0.779				
	YC2	0.538	0.723				
YC	YC3	0.629	0.776	0.840	0.844	0.525	0.161
	YC4	0.744	0.849				
	YC5	0.654	0.762				
	BV1	0.601	0.741				
	BV2	0.585	0.729				
BV	BV3	0.783	0.873	0.850	0.852	0.54	0.048
	BV4	0.671	0.81				
	BV6	0.665	0.772				
	AT1	0.714	0.795				
AT	AT4	0.726	0.871	0.849	0.85	0.654	0.184

Scale	Item	Item-Rest Correlation	Factor loading	Cronbach's Alpha	CR	AVE	MSV
DD	AT5	0.717	0.867	0.803	0.805	0.511	0.184
	DD1	0.569	0.780				
	DD2	0.576	0.741				
	DD3	0.662	0.837				
	DD4	0.665	0.797				
KMO = 0.827; Sig. = 0.000							
Component =12; Cumulative % = 65.41%							

Source: Authors analysis from data, 2025

Results of structural model evaluation

The evaluation of the structural model (second-order SEM) demonstrates a good fit with the data: CMIN/DF = 2.183 (<3), CFI = 0.906, TLI = 0.902 (≥0.9), RMSEA = 0.041 (<0.05), GFI = 0.863 (>0.8), meeting the recommended thresholds and confirming the appropriateness of the theoretical structure.

Table 4. Summary of SEM analysis results

Variable relationship	Estimate	S.E.	C.R.	P	Standardized estimate	Impact assessment & hypothesis support
QL <-- NLCT	0.283	0.074	3.844	***	0.188	Positive impact, low-medium level – Hypothesis supported
SP <-- NLCT	0.191	0.089	2.145	0.032	0.103	Positive impact, low level – Hypothesis supported, but weak effect
TN <-- NLCT	1.000	–	–	–	0.536	Strong impact –

Variable relationship	Estimate	S.E.	C.R.	P	Standardized estimate	Impact assessment & hypothesis support
	(fixed)					Hypothesis strongly supported
VH <-- NLCT	0.892	0.117	7.621	***	0.464	Strong impact – Hypothesis supported
HT <-- NLCT	0.275	0.077	3.571	***	0.178	Positive impact, low-medium level – Hypothesis supported
BV <-- NLCT	0.333	0.135	2.471	0.013	0.119	Positive impact, low level – Hypothesis supported, but weak effect
YC <-- NLCT	0.810	0.100	8.072	***	0.489	Strong impact – Hypothesis supported
KD <-- NLCT	s0.234	0.109	2.145	0.032	0.103	Positive impact, low level – Hypothesis supported, but weak effect
TI <-- NLCT	1.057	0.121	8.712	***	0.595	Very strong impact – Hypothesis strongly supported
DD <-- NLCT	1.156	0.139	8.325	***	0.547	Very strong impact – Hypothesis strongly supported
AT <-- NLCT	1.030	0.108	9.557	***	0.736	Strongest impact – Hypothesis strongly supported
NL <-- NLCT	0.237	0.085	2.797	0.005	0.141	Positive impact, low level – Hypothesis supported, but weak

Variable relationship	Estimate	S.E.	C.R.	P	Standardized estimate	Impact assessment & hypothesis support effect
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Source: Authors analysis from data, 2025

Regarding the degree of influence, the factors with the strongest impact on competitiveness include Safety and Security (AT, $\beta = 0.736$) as the most significant, Public Amenities (TI, $\beta = 0.595$) and Destination Uniqueness (DD, $\beta = 0.547$) as very strong, Natural Resources (TN, $\beta = 0.536$) and Demand Factors (YC, $\beta = 0.489$) as strong. Cultural Heritage (VH, $\beta = 0.464$) exerts a moderate impact, suggesting a need for more systematic efforts in preservation and promotion. Factors with moderate to low impact comprise Destination Management (QL, $\beta = 0.188$), Infrastructure (HT, $\beta = 0.178$), Human Resources (NL, $\beta = 0.141$) and Environmental Sustainability (BV, $\beta = 0.119$). Products and Services (SP, $\beta = 0.103$) and the Business Environment (KD, $\beta = 0.103$) show the lowest levels of influence.

The synthesized results indicate that, from the experts' perspective, Da Lat's current strengths lie in safety, public amenities, destination uniqueness, natural resources. At the same time, the weaker components in management, infrastructure, human resources, environmental sustainability, products and services, and the business environment are identified as priority areas for improvement.

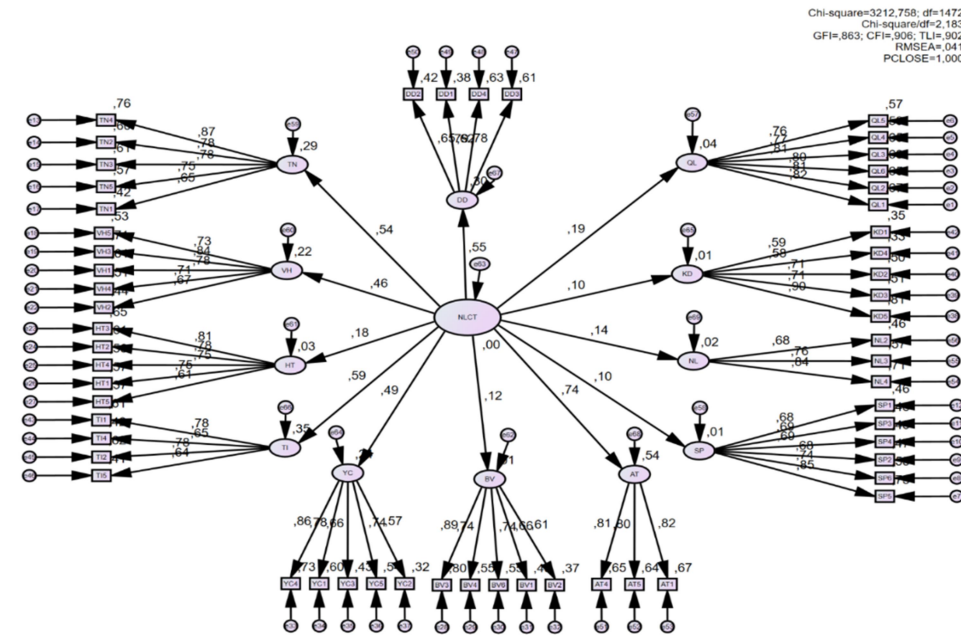


Figure 3. Results of the second-order SEM structural model analysis of factors determining tourism destination competitiveness

Source: Authors analysis from data, 2025

5. Discussion of research results and management implications

5.1. Discussion of research results

The study integrates a second-order SEM with the supply–demand framework of Novais [17] and adopts a mixed-methods design combining Delphi consultation, a large-scale quantitative survey, and in-depth interviews. The sample consists of 700 respondents who meet clearly defined expert criteria which strengthens the reliability of the empirical results. This approach enables a clear identification of the components of Da Lat’s tourism destination competitiveness with model fit indices at acceptable levels (CMIN/DF = 2.183, CFI = 0.906, TLI = 0.902, RMSEA = 0.041).

From an academic perspective, the study proposes a multidimensional framework for assessing destination competitiveness that is empirically validated in the context of Da Lat. A

key contribution lies in the integration of “destination uniqueness” as a latent construct and the alignment of supply-demand perspectives within a single analytical model. The findings both reinforce and extend earlier empirical evidence.

The results confirm the dominant role of safety and security ($\beta = 0.736$). This is consistent with Novais et al. [32], who identify safety as a decisive factor in destination choice in both mature and emerging markets, and with Goffi et al. [23], who demonstrate that perceived safety has a direct effect on satisfaction and revisit intention in post-crisis settings. The central position of safety in the present model indicates that it forms a foundational pillar of destination competitiveness.

The study also confirms and quantifies “destination uniqueness” ($\beta = 0.547$) as a core driver of competitiveness. Previous empirical work, such as Zehrer et al. [18], shows that destinations with distinctive identities and specific experiential attributes tend to achieve higher levels of loyalty and positive word-of-mouth. However, most classical competitiveness models [10, 19] do not formally incorporate uniqueness as a measurable construct. The successful validation of this construct in the case of Da Lat therefore represents a methodological contribution and responds to calls for stronger contextualisation in destination branding [21].

In addition, the findings indicate relatively modest effects of infrastructure ($\beta = 0.178$), human resources ($\beta = 0.141$), and environmental sustainability ($\beta = 0.119$) compared with some international studies. While Dwyer & Kim [10] and Hassan [20] highlight the central importance of infrastructure and human resources in the competitiveness of destinations such as South Korea and Australia, the weaker effects observed in Da Lat suggest the presence of constraints related to investment, skills and awareness of sustainability. This implies that Da Lat’s competitiveness still relies heavily on existing advantages such as safety, natural assets and uniqueness, and that these advantages need to be supported by long-term strategies to strengthen infrastructure, human capital, and environmental management.

Theoretically, the study contributes in two main ways. First, the integrated approach shows that experiential and symbolic dimensions, such as uniqueness and emotional appeal, can be measured in a reliable manner and should be incorporated into competitiveness models. Second, the evidence from Da Lat illustrates that generic frameworks are only a starting point and must be adapted to specific contexts rather than applied uniformly across destinations.

In practical terms, the emphasis on safety, public amenities, and destination uniqueness is consistent with the recommendations of Novais et al. [32] and Goffi et al. [5], who advocate

focused investment in these pillars to enhance competitiveness and resilience. The identification of weaker elements in destination management, infrastructure, and environmental sustainability also aligns with the conclusions of Tam et al. [21], who underline the need for capacity-building and infrastructure upgrading in Vietnamese destinations.

Finally, the model was adapted to the specific context of Da Lat through Delphi rounds and expert consensus. This process addresses the limitations of “one-size-fits-all” models criticised by Ritchie & Crouch [19] and Hassan [20]. By capturing Da Lat’s particular combination of climate, architecture, and culture, the model offers a reference point for other destinations seeking to leverage distinctive attributes.

5.2. Managerial implications for enhancing the tourism destination competitiveness of Da Lat

The SEM results indicate that safety and security, public amenities, destination uniqueness, natural resources, and demand-side attributes exert the strongest influence on Da Lat’s tourism competitiveness. Based on this evidence, several priority directions for destination management can be proposed.

First, strengthening safety and security should be regarded as a central task. This requires investment in surveillance systems, professional security forces, and robust emergency response procedures. A safe environment is a prerequisite for maintaining visitor trust and satisfaction.

Second, public amenities and supporting services need to be progressively upgraded, with particular attention to environmental sanitation, healthcare facilities, information services, internet infrastructure, and transport at key tourist areas. Improvements in these domains have a direct and visible effect on the quality of visitor experience.

Third, the uniqueness of Da Lat should be preserved and enhanced. This involves safeguarding French architectural heritage, promoting local cultural identity, developing romantic and creative tourism products associated with the image of a “little Paris”. Strengthening strategic storytelling and experiential marketing can help consolidate Da Lat’s distinctive position in an increasingly competitive landscape.

Fourth, the protection and sustainable use of natural resources require careful spatial planning for eco-tourism routes, control of urban expansion, and the preservation of pine

forests, lakes, green spaces. These efforts should be accompanied by initiatives to raise environmental awareness among residents and visitors, so as to limit negative impacts associated with tourism growth.

Fifth, service quality and responsiveness to visitor expectations should be improved through the establishment of systematic feedback mechanisms, the use of survey results to adjust service processes, and the design of products tailored to specific market segments.

5. Conclusion

This study develops and empirically tests a multidimensional model of tourism destination competitiveness for Da Lat using an integrated supply-demand perspective and a second-order SEM approach with expert-based data. The research combines Delphi consultation, scale development, and large-scale quantitative analysis to construct and validate a measurement framework that reflects both international theoretical foundations and the specific characteristics of Da Lat. The findings show that safety and security, public amenities, destination uniqueness, natural resources, and demand-side factors are the main drivers of Da Lat's tourism competitiveness. Safety and security emerge as the strongest determinant, followed by public amenities and destination uniqueness. Natural resources and demand-side factors also play an important role. Infrastructure, destination management, human resources, environmental sustainability, tourism products and services, and the business environment display weaker but still significant effects, and thus represent priority areas for improvement. A notable contribution of the study is the formal inclusion and validation of "destination uniqueness" as a distinct construct. This result highlights the importance of experiential and symbolic attributes, such as Da Lat's "Little Paris" identity, in shaping competitive advantage. The expert-based approach enables an indirect integration of supply and demand perspectives, as experts draw on their knowledge of policy, management, and market dynamics when assessing competitiveness.

Limitations and future research directions: The present study does not explore in depth the relationships between destination competitiveness, tourism performance, and visitor satisfaction, nor does it implement multi-group analyses of these linkages. Future research should develop and test models that explicitly connect these three constructs and employ multi-group SEM to examine differences across destination segments or expert groups. Such extensions would enhance the explanatory power of the model and increase its value for policy design and strategic planning.

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