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Constructing an evaluation index system for the tourism value of Guangdong's Maritime Silk Road cultural heritage

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Constructing an evaluation index system for the value of cultural heritage tourism resources can provide a scientific and practical basis for decision-making in both protecting Guangdong's Maritime Silk Road (MSR) cultural heritage and enhancing the effectiveness of its cultural tourism. Through a combination of literature review and grounded interviews, 28 evaluation factors were initially identified. Subsequently, using the Fuzzy Delphi Method and consulting expert panels drawn from government, industry, and academia, the list was refined and 26 key evaluation indicators were ultimately selected. The findings reveal that the value of MSR cultural heritage tourism resources in Guangdong can be categorized into four main dimensions: industrial service, historical remains, science education, and tourism and leisure. The levels of expert consensus on the importance of these dimensions were as follows: Industrial Service Value (7.37), Historical Heritage Value (7.21), Science and Education Value (7.00), and Tourism and Recreation Value (6.99). Among the individual indicators, the following six were considered of relatively high importance: Tourism Management Level (7.78), Historical and Cultural Significance (7.74), Maturity of Resource Infrastructure (7.58), Cultural Route Tourism (7.48), Local Community Participation (7.41), and Heritage Antiquity (7.40). In contrast, using MSR heritage tourism in Guangdong to experience exotic cultures or enhance popular religious beliefs did not receive wide academic recognition. The findings of this study offer a valuable reference for government authorities and industry stakeholders in developing strategies to enhance the impact and value of MSR cultural heritage tourism in Guangdong.

KEYWORDS

Guangdong Maritime Silk Road, cultural heritage, tourism resources, value assessment, evaluation index system

1 Introduction

Cultural tourism resources constitute a core component of contemporary tourism development. A principal focus of current tourism supply-side reform is the effective utilization of cultural tourism resources to generate high-quality, innovative products that stimulate demand and foster stable economic growth (Ristić, 2018). The strategic selection of cultural tourism resources and the creative development of market-driven tourism offerings have garnered widespread attention across multiple sectors. A rigorous classification and value assessment of these resources form the foundational basis for advancing high-quality tourism and thus merit in-depth investigation.

The initiative to “jointly build the 21st-Century Maritime Silk Road” has invigorated cultural tourism development along the Maritime Silk Road (MSR) (Zhang and Zheng, 2019). Guangdong, the cradle of China’s MSR, occupies a pivotal position in its historical trajectory. With a maritime trade history spanning over two millennia, Guangdong has amassed a rich repository of MSR cultural heritage. Nevertheless, aside from a few exceptional sites co-nominated for UNESCO World Heritage status by provinces along the route, much of Guangdong’s MSR heritage remains under-researched and undervalued, failing to reflect the province’s centrality as a major custodian of MSR historical and cultural assets (Luo, 2020).

Cultural heritage tourism, as a nexus of heritage conservation and cultural travel, simultaneously involves the sustainable development and adaptive reuse of heritage resources, as well as the fulfillment of tourists’ expectations for immersive cultural experiences. This form of tourism, shaped by cultural appeal, reflects a dual relationship between the demand side (visitor expectations) and the supply side (resource provision). Shifts in these demand-supply dynamics often result in a complex interplay between tourism activity and heritage value (Apostolakis, 2003). However, the optimal approach to integrating these dimensions—so that cultural heritage tourism functions as both heritage reuse and an authentic visitor experience—requires further exploration.

An oversupply of cultural heritage relative to demand may lead to widespread “cultural replication” and the proliferation of standardized, mass-market cultural tourism products (Richards and Wilson, 2007). In the process of integrating cultural heritage with tourism, the diversity of human motivations, coupled with shifting consumer preferences, may impede sustainable tourism development. Heritage assets once in high demand may lose their appeal over time (Ashworth, 2000). Conversely, an excessive focus on tourist preferences may give rise to a “tourist-centric, heritage-neglecting” paradigm, resulting in a misrepresentation of the intrinsic value of heritage (Ashworth and Tunbridge, 2000). Thus, when heritage resources are over-supplied as core attractions, their perceived value tends to decline, along with visitor interest. Conversely, prioritizing tourist demands can lead to overexploitation of heritage sites, ultimately diminishing their touristic appeal (Timothy and Boyd, 2006). It is therefore incumbent upon government bodies to account for the experiential quality requirements of diverse cultural tourist segments. This requires not only meticulous planning of destination-based heritage resources but also the thoughtful integration of visitor experience needs.

In light of the above, this study undertakes a systematic assessment of Guangdong’s MSR cultural tourism resources. Based on the national standard Classification, Investigation, and Evaluation of Tourism Resources (GB/T 18972–2017) (hereafter, the “National Standard”), it delineates the definition and value dimensions of these resources and constructs an evaluation index system for cultural heritage tourism value assessment. The proposed system is grounded in a dual theoretical perspective—tourism demand and cultural route theory. The findings of this study enhance understanding of the regional resource landscape, provide an empirical basis for the protection of Guangdong’s MSR cultural heritage, and offer strategic support for planning,

product development, branding, and the innovative advancement of Guangdong’s MSR cultural tourism.

2 Research theories and literature review

2.1 Concept and characteristics of cultural heritage tourism resources

The concept of “resources” initially referred to environmental endowments, but has since evolved to encompass both natural and cultural domains, highlighting their utilitarian potential (Ahmad, 2006; Liu et al., 2022). Natural resources denote environmental elements that generate economic value and enhance human wellbeing within specific spatio-temporal contexts. By contrast, cultural resources comprise both tangible and intangible artifacts accumulated throughout human civilization, representing material and immaterial cultural wealth (Apollo et al., 2025).

Tourism resources, as a subset of general resources, refer to elements within a defined geographical area that attract visitors and can be harnessed by the tourism sector to generate economic, social, and environmental benefits. These resources may be either developed or undeveloped and include both natural and cultural components of potential tourism value (Chen et al., 2022).

Cultural tourism resources—an important subclass of tourism resources—may be narrowly defined as those integrating cultural and tourism elements. More broadly, they encompass all entities capable of offering cultural experiences to tourists, including historical, artistic, and scientific artifacts; architecture; heritage sites; oral traditions; performing arts; social customs; rituals; festivals; traditional knowledge systems; and artisanal skills (Qiu and Zhang, 2021; Mzembe et al., 2023).

Based on a comprehensive review of extant scholarship, this study adopts a broad definition of cultural heritage tourism resources: any tangible or intangible element existing within a defined spatial context, possessing cultural value or elements that attract visitors, and capable of being harnessed by the tourism industry to generate social, economic, and ecological benefits.

2.2 Research on the evaluation of cultural heritage tourism resources

The evaluation of tourism resources in international academia can be traced back to the 1950s, when scholars began developing models and index systems to quantify tourism value. By the 1970s, mathematical techniques were adopted, shifting assessments from mere visual appraisal to more comprehensive analyses incorporating cultural and economic dimensions (Zhang et al., 2023a,b). Common methods include qualitative evaluations and multi-dimensional quantitative approaches.

In the late 1970s, in response to the need for domestic tourism development, Chinese scholars began incorporating international methodologies into tourism resource evaluation. Criteria were progressively refined to include visitor perceptions, market reputation, aesthetic characteristics (Zhang and Long,

2023), climatic suitability, landscape composition (Guang et al., 2017), and integrated indices addressing resource value, impacts, and development feasibility (Zhou and Wang, 2021). Among these, the “National Standard” has become the most widely applied in practice. However, Bai and Wang (Bai and Wang, 2020) argue that current models’ excessively uniform weighting mechanisms may undervalue resources with unique strengths, thereby misaligning with market-oriented development imperatives.

Recent evaluation models have shown a marked shift toward diversification, with increasing emphasis on the role of tourists. Contemporary frameworks incorporate visitor experience assessments, expert-based technical evaluations, and multi-stakeholder analyses, drawing on inputs from academics, tourism operators, community residents, and public authorities (Yang, 2024).

Given that this study aims to assess the extent to which Guangdong’s MSR cultural heritage tourism resources satisfy tourist experience demands, visitor experience is treated as a key evaluative variable. Cultural tourism experience, defined as the interpretation of all sensory perceptions (Passer and Smith, 2004), comprises fundamental components such as visiting, learning, enjoying, and engaging in diverse lifestyles (Stamboulis and Skayannis, 2003). To further enhance the quality of tourist experiences, Quadri-Felitti and Fiore (2012) advocated applying the Experience Economy framework, encompassing four principles: differentiation, participation, authenticity, and challenge. Similarly, Pine and Gilmore (2011) outlined four broad “realms of experience”: entertainment, education, escapism, and aesthetics. Aho (2001) proposed four core components of tourism experience: emotional, learning, practical, and aesthetic.

2.3 Cultural heritage tourism resources of the Maritime Silk Road

The term “Silk Road” was coined by German geographer Richthofen in 1877 and later expanded by French sinologist Chavannes (1908), who introduced the notion that the Silk Road included both overland and maritime routes, thereby coining the concept of the “Maritime Silk Road.”

Early MSR studies focused predominantly on its historical formation, trade patterns (Schinas and von Westarp, 2017), and the cultural and economic implications of transregional exchange. In 1987, UNESCO conducted a comprehensive survey of 22 port cities across 16 MSR countries, examining trade policies, handicraft industries, and the diffusion of religious and cultural traditions (Liu, 2017).

In China, Chen (1982) was among the first to articulate the concept of the MSR while analyzing the international dissemination of Chinese silk. Domestic research on the MSR generally falls into two categories: temporal studies focusing on historical significance and evolutionary stages, and spatial studies examining regional development and port infrastructure (Shen et al., 2024). With the rollout of the Belt and Road Initiative and joint efforts toward World Heritage inscription, the scope of research has expanded to include economic cooperation, port development, cultural identity, and tourism strategy (Huang et al., 2009).

In 2006, the Swedish ship Götheborg retraced an ancient MSR route to Guangzhou in an 11-month voyage, initiating the global development of MSR cultural tourism resources. In 2012, the World Tourism Organization (WTO, 2005) proposed establishing an “MSR Tourism Route” to enhance regional tourism collaboration.

In China, academic discourse on MSR cultural tourism increasingly centers on resource development evaluation, spatial distribution, cultural tourism strategies, product innovation, and interregional cooperation. Key areas of focus include coordinated development, product differentiation, branding, and market diversification (Sen, 2023).

Guangdong’s MSR heritage encompasses a wide variety of site types that are nationally distinctive, including submerged shipwrecks, sea deity temples, navigational landmarks, and ancient courier routes. According to documentation from two World Heritage nomination submissions, Guangdong possesses 438 tangible cultural heritage sites across six categories: maritime transport relics, export-oriented manufacturing bases, cultural exchange remnants, sea god temples, and coastal defense installations. Additionally, there are 168 elements of intangible cultural heritage linked to maritime trade rituals and folk practices. Collectively, these cultural assets reflect the deep-rooted maritime civilization that has shaped Guangdong’s development over the past two millennia.

3 Research methods and process

To ensure objectivity and comprehensiveness in evaluating the cultural heritage tourism resources of the Maritime Silk Road (MSR) in Guangdong, this study employs a mixed-methods approach, integrating qualitative research with quantitative statistical analysis. By examining cultural heritage tourism demand, the study refines the evaluation framework for assessing the value of Guangdong’s MSR cultural heritage tourism resources.

The research unfolds in two phases. In the first phase, grounded theory is applied through literature review and in-depth interviews to systematically collect key factors relevant to the development and evaluation of Guangdong’s MSR cultural heritage tourism resources. In the second phase, fuzzy theory and the Fuzzy Delphi Method (FDM) are employed. Experts from academia, government, and industry rate the importance of the evaluation indicators identified in the first phase. Indicators failing to meet threshold values are eliminated, ensuring the final evaluation system is both valid and reliable.

3.1 Identification and selection of evaluation factors

3.1.1 Literature review

This study synthesizes domestic and international literature, particularly empirical research on cultural heritage tourism demand, to ensure the selected indicators align with global trends and the specific characteristics of Guangdong’s MSR tourism. Relevant research is retrieved from academic databases such as the China National Knowledge Infrastructure (CNKI) and Web

TABLE 1 Open coding of literature research.

Node name	Source materials	Frequency	Node name	Source materials	Frequency
Tourism and recreation value	39	86	Relevance to MSR culture	12	17
Historical and cultural value	33	105	Transportation accessibility	12	12
Scientific and artistic value	30	71	Regional comprehensive effects	11	15
Rarity and uniqueness	29	60	Government support	11	11
Scale of tourism resources	28	41	Emotional experience	10	12
Integrity of structural form	27	51	Cultural heritage transmission	10	18
Resource popularity	27	43	Comfort of surrounding landscape	9	12
Resource influence	25	71	Accessibility of tourism resources	9	10
Optimal tourism season	22	46	Social recognition	8	9
Suitability for tourist demographics	22	54	Geographic location of cultural heritage	7	13
Environmental protection	19	41	Resource combination	7	10
Environmental safety	19	36	Diversity of tourism derivative products	6	12
Heritage protection level	18	29	Resource rarity	6	7
Scientific and educational value	18	44	Popularity of intangible cultural heritage and folk beliefs	6	8
Cultural heritage management level	17	30	Resource reputation	5	5
Resource utilization value	16	30	Antiquity of cultural heritage	5	6
Cultural heritage protection	16	60	Aesthetic value	4	5
Tourism management quality	15	49	Community participation	4	4
Tourism infrastructure	15	30	Local residents' attitude	3	5
Tourism resource clustering	14	24	Market potential	3	3
Harmony of tourism resources	14	33	Regional economic conditions	2	2
Regional tourism revenue	13	35	Diversity of folk activities	1	2
Tourism resource developability	13	18	Richness of "MSR" intangible cultural heritage	1	1

of Science, as well as search engines like Baidu Scholar and Google Scholar.

Given the limited number of studies specifically addressing the evaluation of Guangdong's MSR cultural heritage tourism resources, a broad keyword strategy is adopted. Keywords such as *Maritime Silk Road cultural heritage*, *MSR cultural tourism value assessment*, and *MSR cultural heritage + tourism resources value* are cross-referenced to ensure comprehensiveness. Titles and abstracts are screened to eliminate irrelevant studies, with full-text reviews conducted as necessary. A total of 86 relevant papers are selected, and 46 free nodes are coded for further analysis (see Table 1).

3.1.2 Interview data analysis

Although random sampling is commonly used in empirical research to ensure statistical representativeness, it may lack flexibility and fail to fully reflect the diversity of Guangdong's MSR cultural heritage tourism stakeholders. To address this, purposive sampling is employed for semi-structured interviews with key stakeholders, including experienced tourists, business operators, local residents, merchants, cultural tourism scholars, and representatives from tourism management authorities. In total,

24 individuals are interviewed; participant details are provided in Table 2.

The semi-structured interview design accommodates differences in tourism demand among stakeholder groups. Interviews begin with general questions, such as: "*How should the value of Guangdong's MSR cultural heritage tourism resources be assessed?*"—providing a broad framework to guide discussion. Interviewees are encouraged to offer continuous, in-depth responses to elicit authentic and occasionally unexpected insights. Particular attention is paid to unique or "typical" needs arising from individual experiences or heritage contexts.

Interviews are conducted at locations chosen by participants and last ~30–40 min each. With participant consent, interviews are recorded and transcribed within 24 h. The final transcription exceeds 100,000 words, with 24 free nodes coded for analysis (see Table 3).

3.1.3 Evaluation factor framework

To ensure the validity of the qualitative research, this study verifies the coding consistency and saturation of thematic

TABLE 3 Open coding of interview data.

Open code	Number of mentions	Open code	Number of mentions	Open code	Number of mentions
Tourism viewing and recreational value	23	Emotional experience value	16	Tourism branding	9
Well-developed infrastructure	22	Educational function	15	Vivid historical storytelling	8
Standardized service management	22	Tourism industry linkages	14	Standardized story interpretation	8
High resource reputation	21	Tourism economic benefits	14	Diverse thematic activities	6
Integrity of cultural heritage	20	Cultural exchange value	13	Scientific research value	5
Tourism festivals and events	19	Government support	10	Cultural route tourism	5
Abundant heritage resources	18	Local community participation	10	Heritage transmission value	3
Heritage protection level	18	Development of tourism products	9	Experiencing exotic culture	3

TABLE 2 Respondents' personal information (N = 24).

No.	Type	Number	Information details
1	Experienced tourists	6	3 males, 3 females; average annual travel frequency of 4 or more times; visited MSR-related tourism sites in Guangdong at least twice
2	Tourism companies (tour guides)	5	2 males, 3 females; at least 5 years of tourism industry experience; guided tours at Guangdong's MSR sites at least 10 times
3	Local business owners	3	2 males, 1 female; engaged in business activities at tourism sites for 5 or more years
4	Local residents	5	3 males, 2 females; residing in tourism area for more than 10 years
5	Experts and scholars	3	1 male, 2 females; university professors with 15+ years of teaching experience; includes 1 sociology expert, 1 human geography expert, and 1 tourism management expert
6	Cultural and tourism government officials	2	1 male, 1 female; over 10 years of work experience

nodes (Yardley, 2017): Validation is conducted using a two-pronged approach: (1) cross-checking by two researchers coding simultaneously, and (2) re-evaluation of the coding after a 1-week interval. The process employs the percentage agreement formula proposed by Huberman and Miles (2002), using NVivo's coding comparison function. Results indicate agreement rates exceeding 90% in both horizontal and vertical comparisons, confirming coding reliability. Horizontal validation generally yields lower consistency due to interpretative differences between coders. Furthermore, since literature descriptions of resource value are typically more explicit, both validation approaches

TABLE 4 Evaluation framework for tourism resource value of Guangdong's MSR cultural heritage.

Secondary coding	Primary coding
Tourism and leisure value	Viewing and recreation, resource uniqueness, tourism suitability, resource harmony, tourism experience, landscape ecology, experiencing exotic culture
Historical heritage value	Historical and cultural significance, heritage protection, thematic relevance, antiquity of heritage, integrity of heritage, abundance of heritage, heritage protection level, cultural route tourism
Scientific and educational value	Scientific artistic significance, folk beliefs, diversity of folk activities, government support, resource reputation, educational significance, vivid historical storytelling
Industrial service value	Resource branding, tourism management level, infrastructure maturity, resource developability, local community participation, diversity of tourism derivative products

demonstrate higher reliability for literature-based materials than for interview data.

Based on the literature review and interviews, overlapping nodes—such as “resource recognition” and “influence”—are integrated, while vague or non-specific indicators, such as “economic conditions” and “resource usage,” are excluded. Using NVivo's hierarchical node function, similar factors are grouped into four primary categories: tourism and leisure, historical heritage, science education, and industry services. This results in 28 coded evaluation indicators for assessing the value of Guangdong's MSR cultural heritage tourism resources (see Table 4).

3.2 Scoring and selection of evaluation factors

3.2.1 Research methodology overview

The Fuzzy Delphi Method integrates fuzzy theory with the conventional Delphi technique, using triangular fuzzy numbers to synthesize expert opinions. Gray relational analysis is applied to determine consensus. Only when consensus is achieved can expert

judgments be deemed valid and reliable. The process involves the following steps:

- Step 1: Define the range of values for each criterion, specifying the optimistic cognition value (O) and conservative cognition value (C). Higher scores denote greater perceived importance.
- Step 2: Collect and analyse expert scores, removing outliers beyond twice the standard deviation. Calculate the minimum, geometric mean, and maximum values for both O and C.
- Step 3: Establish triangular fuzzy numbers for each evaluation criterion.
- Step 4: Calculate the gray zone verification value to assess consensus. A positive value indicates convergence; a negative value suggests significant divergence, necessitating additional expert consultation.
- Step 5: Compute the expert consensus value and establish a threshold value (S) to filter indicators based on expert input or relevant standards.

3.2.2 Design of the Fuzzy Delphi expert questionnaire

A Fuzzy Delphi expert questionnaire is utilized to refine the assessment framework and eliminate non-essential criteria for evaluating the value of “Guangdong Maritime Silk Road Cultural Heritage Tourism Resources.” For example, if an expert evaluates the “aesthetic and recreational value” criterion as 7, with a perceived minimum of 5 and maximum of 9, they record these values as (7, 5, 9) in the corresponding fields of the questionnaire.

3.2.3 Selection of expert panel

According to Dalkey (1969), a minimum of 10 experts ensures minimal error and high credibility in Delphi studies. Given this study’s focus on Guangdong’s MSR cultural heritage tourism resources, selected experts required relevant research, managerial, or practical expertise. Accordingly, 12 experts were purposefully selected: four university professors specializing in cultural tourism, four government officials from cultural tourism departments, and four experts from industry associations. Each possessed over 15 years of professional experience in their respective fields.

4 Research findings and discussion

This study developed a comprehensive evaluation framework for Guangdong’s Maritime Silk Road (MSR) cultural heritage tourism resources through literature review and coding analysis. The framework was further refined using two rounds of Fuzzy Delphi expert questionnaires. Key findings and discussions are presented below.

4.1 Determination of evaluation criteria

In the first round, all 12 distributed questionnaires were returned. Data analysis revealed that two criteria—“Exotic Cultural Experience” and “Richness of Folk Activities”—had overlapping

triangular fuzzy values and gray zones in fuzzy relations, indicating a lack of expert consensus and significant variation in extreme values. These preliminary results were shared with the expert panel, followed by a second round of questionnaires. All responses were collected and analyzed (see Table 5).

The second round of expert evaluation showed that eight criteria, including “Aesthetic and Recreational Value,” “Uniqueness of Resources,” “Emotional Experience,” “Integrity of Heritage,” “Cultural Route Tourism,” and “Degree of Folk Belief,” still displayed overlapping triangular fuzzy values. However, an examination of the fuzzy relation verification values indicated that extreme opinions did not significantly deviate from the overall expert consensus. After adjustments, all criteria met the convergence threshold, indicating consensus among experts.

4.2 Development of the evaluation system

The Fuzzy Delphi Method was used to incorporate expert knowledge and practical experience in assessing the importance of evaluation criteria and removing irrelevant factors. The threshold for elimination significantly affects the final set of criteria. Existing literature often determines thresholds based on researcher judgement. Khorramshahgol and Moustakis (1988) for instance, recommended retaining criteria with at least 80% expert agreement. Following consultation with the expert panel, this study adopted a threshold value of 6.50, meaning that criteria scoring below this value were excluded.

To ensure objectivity and consistency, the threshold values were calculated using the geometric mean. As Klir and Folger (1987) noted, expert consensus thresholds typically fall between 6 and 7. Accordingly, a threshold of 6.50 was established, with any criterion scoring below this value deemed invalid (Shang et al., 2023).

As a result, “Exotic Cultural Experience” and “Degree of Folk Belief” were excluded. The final evaluation system comprises four dimensions and 26 evaluation criteria for assessing Guangdong’s MSR cultural heritage tourism resources (see Figure 1).

4.2.1 Discussion on the exclusion of the indicator “Exotic Cultural Experience”

The exclusion of “Exotic Cultural Experience” is due to the superficial nature of current MSR cultural tourism, which often fails to explore its historical, religious, and social meanings. Tourists struggle to connect with the deeper cultural essence, hindering authentic engagement with foreign cultures (Mu and Liang, 2020). Despite the MSR’s diverse cultural influences, tourism products lack effective integration and innovation, limiting their appeal to travelers seeking immersive foreign cultural experiences (Yu et al., 2023).

4.2.2 Discussion on the exclusion of “Degree of Folk Belief”

Similarly, “Degree of Folk Belief” was not recognized by the expert panel. This aligns with Wei (2021), who contends that folk beliefs are community-rooted systems of deity worship, behavioral customs, and ritual practices. Under China’s current

TABLE 5 Final statistical data of expert questionnaire.

Evaluation criteria	C_L^i	C_M^i	C_U^i	O_L^i	O_M^i	O_U^i	a_U^i	a_L^i	a_M^i	$M^i - Z^i$	G^i
Aesthetic and recreational value	3.00	5.00	6.00	7.00	9.34	10.00	5.00	7.35	8.00	5.34	7.17
Resource uniqueness	4.00	5.35	7.00	8.00	8.73	10.00	6.00	6.88	8.00	4.38	7.04
Suitability for tourism	4.00	5.59	8.00	8.00	8.73	10.00	6.00	6.70	9.00	3.14	7.16
Resource harmony	5.00	5.73	8.00	8.00	8.97	10.00	6.00	6.79	8.00	3.24	7.35
Emotional experience	5.00	5.63	7.00	8.00	9.06	10.00	6.00	7.29	9.00	4.43	7.35
Landscape ecology	4.00	5.34	8.00	6.00	8.51	10.00	5.00	6.70	8.00	1.17	6.93
Exotic experience	4.00	4.51	6.00	6.00	7.63	10.00	5.00	5.67	8.00	3.12	6.07
Historical and cultural value	5.00	6.02	7.00	7.00	9.45	10.00	6.00	7.80	9.00	3.43	7.74
Heritage protection	4.00	5.69	7.00	7.00	8.70	10.00	6.00	6.96	8.00	3.01	7.19
Thematic relevance	4.00	5.10	6.00	6.00	8.41	10.00	5.00	6.49	9.00	3.31	6.76
Heritage antiquity	4.00	5.66	8.00	8.00	9.14	10.00	6.00	7.04	9.00	3.48	7.40
Heritage integrity	5.00	5.46	7.00	8.00	8.73	10.00	6.00	6.86	8.00	4.27	7.10
Structural diversity	4.00	5.24	8.00	6.00	8.52	10.00	5.00	6.29	8.00	1.28	6.88
Heritage protection level	3.00	5.56	7.00	7.00	8.80	10.00	6.00	7.05	8.00	3.23	7.18
Cultural route tourism	5.00	5.65	6.00	8.00	9.31	10.00	6.00	7.15	8.00	5.67	7.48
Scientific and artistic value	4.00	5.19	7.00	7.00	8.96	10.00	6.00	6.62	8.00	3.77	7.07
Folk beliefs	3.00	4.60	6.00	7.00	8.20	10.00	5.00	6.16	8.00	4.60	6.40
Richness of folk activities	4.00	5.28	7.00	7.00	8.53	10.00	5.00	6.65	9.00	3.25	6.91
Government support	4.00	5.39	8.00	6.00	8.99	10.00	5.00	6.77	8.00	1.61	7.19
Resource reputation	4.00	5.66	7.00	7.00	8.96	10.00	6.00	7.07	9.00	3.30	7.31
Educational value	4.00	5.28	7.00	7.00	8.69	10.00	6.00	6.68	9.00	3.41	6.99
Vividness of historical narratives	5.00	5.38	7.00	7.00	8.96	10.00	6.00	6.85	8.00	3.58	7.17
Resource branding	5.00	5.46	7.00	7.00	8.96	10.00	6.00	6.79	8.00	3.50	7.21
Tourism management level	5.00	6.20	8.00	7.00	9.37	10.00	6.00	7.67	9.00	2.18	7.78
Maturity of supporting infrastructure	5.00	5.88	7.00	7.00	9.27	10.00	6.00	7.29	8.00	3.39	7.58
Resource development potential	4.00	5.52	7.00	8.00	9.07	10.00	6.00	7.05	8.00	4.55	7.29
Local resident participation	6.00	6.00	6.00	8.00	8.83	9.00	7.00	7.32	8.00	4.83	7.41
Diversity of tourism derivatives	4.00	5.17	7.00	7.00	8.76	10.00	6.00	6.62	8.00	3.58	6.96

policy environment, classifying folk beliefs directly as cultural heritage is neither conducive to a full understanding of such traditions nor appropriate for heritage designation. [Lin and Cai \(2023\)](#) highlights this issue in the case of Mazu worship, where the term *Mazu Custom*—rather than *Mazu Belief*—was used in its Intangible Cultural Heritage designation, emphasizing traditional rituals and customs over religious aspects.

4.3 Ranking of evaluation criteria by importance

Based on expert evaluations, the four dimensions were ranked by consensus value as follows: Industrial Service Value (7.37)—Highest Importance, Historical Heritage Value (7.21), Science and Education Value (7.00), Tourism and Recreation Value (6.99).

Among the 28 evaluation criteria, the six most highly rated were: Tourism Management Level (7.78), Historical and Cultural Significance (7.74), Maturity of Resource Infrastructure (7.58), Cultural Route Tourism (7.48), Local Community Participation (7.41). [Table 6](#) provides further details.

4.3.1 Indicator discussion under the “Industrial Service Value” dimension

Within the Industrial Service Value dimension, “Tourism Management Level,” “Maturity of Resource Infrastructure,” and “Local Community Participation” received the highest expert consensus scores. This suggests that effective tourism management is vital for preserving the authenticity and integrity of MSR heritage sites. Sound planning and oversight prevent

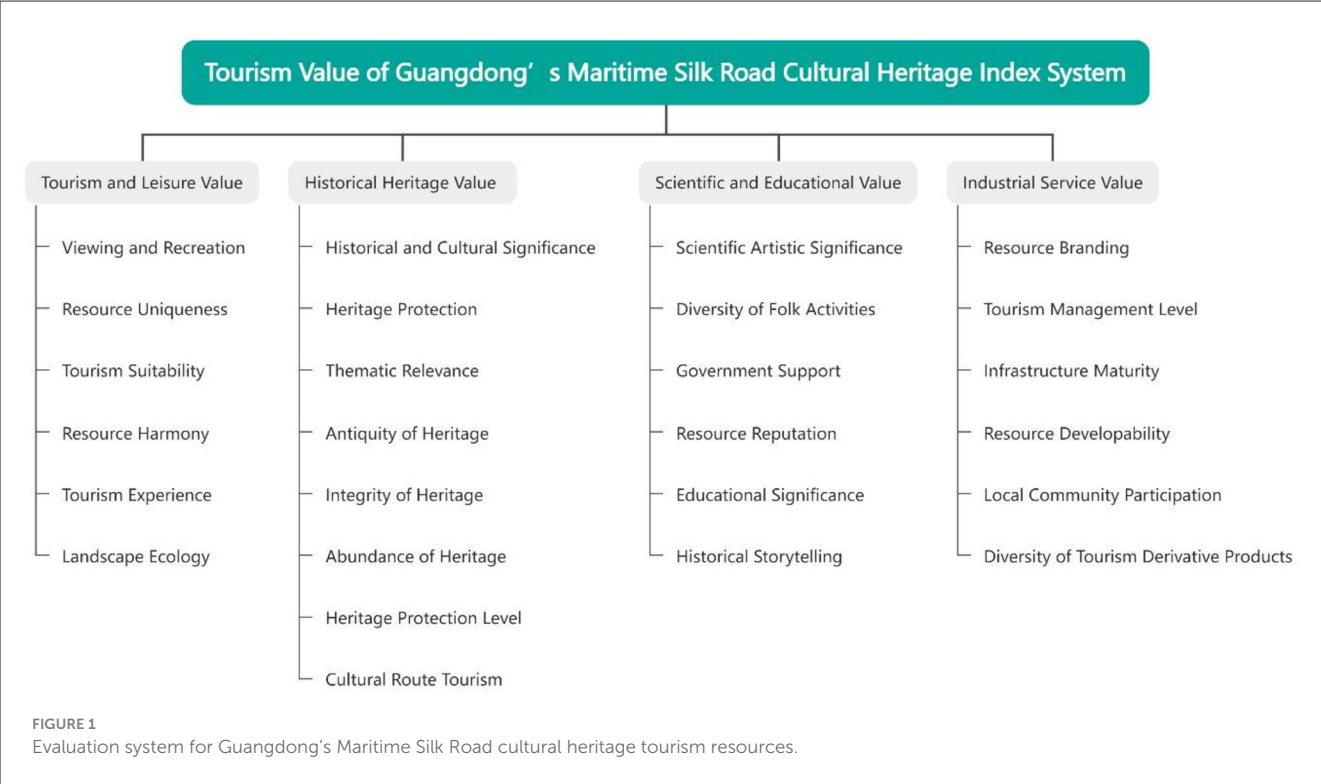


TABLE 6 Ranking of evaluation dimensions and indicators by expert consensus.

Evaluation dimension		Expert consensus score	
Industrial service value		7.37	
Historical heritage value		7.21	
Scientific and educational value		7.00	
Tourism and leisure value		6.99	
Evaluation indicator	Expert consensus score	Evaluation indicator	Expert consensus score
Tourism management level	7.78	Cultural route tourism	7.48
Historical and cultural significance	7.74	Local community participation	7.41
Maturity of resource infrastructure	7.58	Antiquity of heritage	7.40

over-commercialization and unsustainable development, thereby protecting cultural heritage (Chan, 2018).

Comprehensive infrastructure enhances visitor experiences by integrating both tangible and intangible heritage elements, offering diverse tourism products to meet various needs (Pengfei et al., 2022). Moreover, community involvement is crucial, as local residents hold deep cultural knowledge and emotional connections to the heritage. Their engagement helps maintain authenticity

and supports sustainable conservation (Muthuswamy and Esakki, 2024).

4.3.2 Indicator discussion under the “Historical Heritage Value” dimension

Within the Historical Heritage Value dimension, “Historical and Cultural Significance,” “Cultural Route Tourism,” and “Antiquity of Heritage” were rated the most highly. Winter (2021) emphasizes that historical and cultural significance is a core attraction of MSR heritage tourism, offering insights into ancient trade networks, intercultural exchanges, and historic prosperity. Strengthening cultural identity among locals and visitors supports long-term conservation.

The antiquity of heritage sites also contributes to their distinct appeal (Feng, 2005). Meanwhile, Cultural Route Tourism connects various MSR heritage sites into integrated travel networks, enhancing resource use, promoting site synergy, and driving regional tourism development (Zhao and Yan, 2021).

5 Research conclusions and recommendations

This study, grounded in the national standard Classification, Investigation, and Evaluation of Tourism Resources and relevant academic literature, conducted an empirical analysis involving experienced tourists, local residents, industry professionals, and academic experts on Guangdong’s MSR cultural heritage. Drawing on insights from a panel of 12 experts, the research yielded the following key findings:

- 1) The evaluation framework for the tourism value of Guangdong's MSR cultural heritage comprises four key dimensions: industrial service value, historical heritage value, scientific and educational value, and tourism and leisure value.
- 2) Among the assessed indicators, the most critical to determining tourism resource value were: tourism management quality, historical and cultural significance, infrastructure maturity, cultural route tourism, and local community participation.
- 3) The concepts of experiencing an "exotic cultural ambiance" and promoting folk beliefs through MSR cultural heritage tourism in Guangdong did not gain widespread academic recognition.

These findings offer valuable reference points for government agencies and industry practitioners aiming to enhance the effectiveness of MSR heritage tourism in Guangdong. The study's primary conclusions and corresponding recommendations are outlined below:

5.1 Enhancing the industrial service value of Guangdong's MSR cultural heritage

Effective management is essential for safeguarding the integrity and authenticity of MSR heritage. Authorities should formulate sustainable tourism planning and management policies to prevent over-development and ensure long-term preservation (Hu et al., 2022). High-quality management can reveal and communicate the deeper cultural significance of heritage sites. Industry stakeholders should incorporate cultural themes, immersive exhibitions, and innovative cultural products to enhance both the appeal and competitiveness of Guangdong's MSR heritage.

Encouraging local community participation in tourism management and development can deliver authentic, enriching experiences to visitors, generate economic benefits for residents, and foster a stronger sense of ownership and connection to MSR cultural heritage.

5.2 Integrating the historical heritage value of Guangdong's MSR cultural heritage

A systematic investigation and in-depth research into MSR cultural resources are required to deepen understanding of their historical significance, cultural exchanges, and impact on regional development. Strengthening the preservation and management of representative heritage sites is critical to maintaining their authenticity and historical integrity.

Adaptive reuse strategies—such as exhibitions, academic lectures, and cultural festivals—can further raise public awareness and engagement (Zheng et al., 2024). Cross-regional collaboration within the Guangdong–Hong Kong–Macao Greater Bay Area should be promoted to integrate cultural heritage routes and develop interconnected tourism circuits that facilitate both economic and cultural exchange.

Preserving and restoring ancient MSR sites should be prioritized to retain their historical character, while also incorporating them into modern tourism frameworks. Developing a cultural heritage network that links historical landmarks with contemporary tourism experiences will ensure that MSR heritage remains relevant and contributes to regional tourism development.

5.3 Promoting the scientific and educational value of Guangdong's MSR cultural heritage

Positioning MSR cultural heritage as a recognized cultural brand is essential for enhancing its educational impact and public visibility. Awareness campaigns, media promotion, and academic outreach can elevate its profile and reinforce its role in cultural education. Educational tourism products that align with the characteristics of MSR heritage can further enrich learning experiences.

Ensuring the authenticity and historical accuracy of these initiatives is crucial for fostering public understanding (Kumar, 2017). By translating historical narratives into engaging, interactive content, researchers and practitioners can increase public engagement and knowledge dissemination. The adoption of diverse educational formats—including digital storytelling, multimedia presentations, and interactive exhibits—will further enhance learning outcomes and stimulate interest in MSR cultural heritage.

5.4 Leveraging the tourism and leisure value of Guangdong's MSR cultural heritage

A holistic approach is required to fully realize the leisure potential of MSR cultural heritage. Integrating historical landmarks, traditional crafts, and local customs into a cohesive tourism system can expand the diversity and appeal of MSR-related offerings. Combining MSR heritage with Guangdong's natural landscapes can create immersive, aesthetically enriching tourism experiences that highlight both historical depth and scenic beauty (Ismagilova et al., 2015).

Digital technologies such as virtual reality and augmented reality offer innovative means of engaging tourists by bringing historical narratives to life. These tools not only enhance visitor interaction but also foster emotional connections to MSR heritage, thereby increasing cultural awareness and appreciation. Such strategies can help ensure that Guangdong's MSR heritage remains a vibrant, sustainable tourism resource contributing to both cultural enrichment and economic development.

By implementing these recommendations, Guangdong's MSR cultural heritage can strike a balance between conservation and development, ensuring its sustainable integration into the tourism sector while preserving historical and cultural authenticity. This study provides actionable insights for policymakers, tourism operators, and cultural heritage professionals, offering a foundation for more effective MSR heritage management and promotion in the region.

5.5 Research and development and future research suggestions

Given the broad interdisciplinary nature of the evaluation index system for Guangdong's MSR cultural heritage tourism resources, the factors influencing tourism effectiveness and their interrelationships are inherently complex. Due to limited source materials, some proposed indicators may be incomplete. Although the Fuzzy Delphi Method balances objectivity with scientific rigor, its reliance on expert consensus may limit the generalizability of results. Future research should carefully select expert panels and adopt methods suited to the specific conditions of Guangdong's MSR tourism sites. Incorporating perspectives from diverse respondent groups can enhance the reliability and validity of subsequent studies.

This study has successfully established an index system for evaluating the value of Guangdong's MSR cultural heritage tourism resources. Future research will build on this foundation to calculate the weightings of individual indicators and conduct case studies at representative sites. This will provide a quantifiable basis for assessing tourism resource value and for devising targeted strategies to enhance the impact and sustainability of MSR heritage tourism in Guangdong.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

Ethical review and approval were not required for the study on human participants in accordance with the local legislation and institutional requirements. Written informed consent from the patients/participants' legal guardian/next of kin was not required to participate in this study in accordance with the national legislation and the institutional requirements.

Author contributions

MW-B: Writing – review & editing, Methodology, Formal analysis, Writing – original draft, Conceptualization. KL: Data

curation, Software, Writing – original draft, Writing – review & editing, Investigation. HY-Z: Visualization, Investigation, Writing – review & editing, Project administration, Data curation, Writing – original draft.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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References

- Ahmad, Y. (2006). The scope and definitions of heritage: from tangible to intangible. *Int. J. Herit. Stud.* 12, 292–300. doi: 10.1080/13527250600604639
- Aho, S. K. (2001). Towards a general theory of touristic experiences: modelling experience process in tourism. *Tour. Rev.* 56, 33–37. doi: 10.1108/eb058368
- Apollo, M., Wengel, Y., and Kler, B. (2025). *Tourism development, sustainability, and inclusion. Front. Sustain. Tour.* 4:1556258. doi: 10.3389/frsut.2025.1556258
- Apostolakis, A. (2003). The convergence process in heritage tourism. *Ann. Tour. Res.* 30, 795–812. doi: 10.1016/S0160-7383(03)00057-4
- Ashworth, G. (2000). "Heritage tourism and urban environments: conflict or harmony?," in *Tourism and the Environment: Regional, Economic, Cultural and Policy Issues* (Groningen: Springer), 283–304. doi: 10.1007/978-94-015-9584-1_17
- Ashworth, G. J., and Tunbridge, J. E. (2000). *The Tourist-Historic City*. London: Routledge. doi: 10.4324/9780080519470

- Bai, K., and Wang, X. (2020). A review and outlook on the revision of the national standard classification, investigation, and evaluation of tourism resources. *J. Natl. Resour.* 35, 1525–1540. doi: 10.31497/zrzyxb.20200702
- Chan, Y.-K. (2018). Cultural heritage on China's 21st-century maritime silk road: the case of Guangdong Province. *China Rep.* 54, 159–174. doi: 10.1177/0009445518761078
- Chen, J., Guo, Z., Xu, S., Law, R., Liao, C., He, W., et al. (2022). A bibliometric analysis of research on intangible cultural heritage tourism using CiteSpace: the perspective of China. *Land* 11: 2298. doi: 10.3390/land11122298
- Chen, Y. A. (1982). brief discussion on the maritime silk road. *Hist. Res.* 3, 161–177.
- Dalkey, N. C. (1969). The Delphi method: an experimental study of group opinion. *Future* 1, 408–426. doi: 10.1016/S0016-3287(69)80025-X
- Feng, J. (2005). *UNESCO's Efforts in Identifying the World Heritage Significance of the Silk Road*. Xi'an.
- Guang, Y.-M., Wang, H., Xia, D.-Y., and Wang, S.-E. (2017) (2017). A multi-level grey evaluation of the development potential of China's ethnic cultural tourism resources: a case study of Danjia cultural tourism in Hainan. *Sci. Technol. Bull.* 33, 256–260. doi: 10.13774/j.cnki.kjtb.2017.10.054
- Hu, B., He, F., and Hu, L. (2022). Community empowerment under powerful government: a sustainable tourism development path for cultural heritage sites. *Front. Psychol.* 13:752051. doi: 10.3389/fpsyg.2022.752051
- Huang, S.-H., Fu, Y., and Chen, B. (2009). Cultural tourism development along the Maritime Silk Road: the case of the Nanhai No. 1 ancient merchant ship. *Trop. Geogr.* 29, 177–181.
- Huberman, M., and Miles, M. B. (2002). *The Qualitative Researcher's Companion*. Los Angeles, CA: Sage. doi: 10.4135/9781412986274
- Ismagilova, G., Safiullin, L., and Gafurov, I. (2015). Using historical heritage as a factor in tourism development. *Proc. Soc. Behav. Sci.* 188, 157–162. doi: 10.1016/j.sbspro.2015.03.355
- Khorramshahgol, R., and Moustakis, V. S. (1988). Delphic hierarchy process (DHP): a methodology for priority setting derived from the Delphi method and analytical hierarchy process. *Eur. J. Operat. Res.* 37, 347–354. doi: 10.1016/0377-2217(88)90197-X
- Klir, G. J., and Folger, T. A. (1987). *Fuzzy Sets, Uncertainty, and Information*. Berkeley: Prentice-Hall, Inc.
- Kumar, A. (2017). Cultural and heritage tourism: a tool for sustainable development. *Glob. J. Commerce Manag. Perspect.* 6, 56–59. doi: 10.24105/gjcmp.6.6.1709
- Lin, H.-Y., and Cai, D.-C. (2023). "The research of the value of the influence of Mazu belief on folk culture," in *System Innovation for a Troubled World* (Taipei: CRC Press), 130–134. doi: 10.1201/9781003377399-28
- Liu, B. (2017). The impacts of the 21st century maritime silk road on chinese coastal cities. *Landsc. Architect. Front.* 5, 36–42. doi: 10.15302/J-LAF-20170405
- Liu, Y., Wang, Y., Dupre, K., and McIlwaine, C. (2022). The impacts of world cultural heritage site designation and heritage tourism on community livelihoods: a Chinese case study. *Tour. Manag. Perspect.* 43:100994. doi: 10.1016/j.tmp.2022.100994
- Luo, Y. (2020). A preliminary study of Guangdong's distinctive Maritime Silk Road cultural heritage. *Southern Cult. Relics* 269–277.
- Mu, L., and Liang, F. (2020). Development strategy of marine culture tourism in the context of maritime silk road. *J. Coast. Res.* 107, 245–248. doi: 10.2112/JCR-SI107-062.1
- Muthuswamy, V. V., and Esakki, S. (2024). *Exploring Sustainable Cultural Preservation: Strategies, Challenges, and Community Engagement in Heritage Conservation Efforts*. Rita Revista Indexada de Textos Academicos.
- Mzembe, A. N., Koens, K., and Calvi, L. (2023). The institutional antecedents of sustainable development in cultural heritage tourism. *Sust. Dev.* 31, 2196–2211. doi: 10.1002/sd.2565
- Passer, M. W., and Smith, R. E. (2004). *Psychology: The Science of Mind and Behavior*. New York, NY: McGraw-Hill.
- Pengfei, G., Jipu, L., Lu, Y., and Hongbin, X. (2022). Analysis of spatial structure and development potential of cultural tourism resources on Maritime Silk Road in Fujian coastal area. *World Reg. Stud.* 31:214.
- Pine, B. J., and Gilmore, J. H. (2011). *The Experience Economy*. Watertown: Harvard Business Press.
- Qiu, Q., and Zhang, M. (2021). Using content analysis to probe the cognitive image of intangible cultural heritage tourism: an exploration of Chinese social media. *ISPRS Int. J. Geo-Inform.* 10:240. doi: 10.3390/ijgi10040240
- Quadri-Felitti, D., and Fiore, A. M. (2012). Experience economy constructs as a framework for understanding wine tourism. *J. Vacat. Market.* 18, 3–15. doi: 10.1177/1356766711432222
- Richards, G., and Wilson, J. (2007). "Tourism development trajectories: from culture to creativity?," in *Tourism, Creativity and Development* (London: Routledge), 23–56. doi: 10.4324/9780203933695
- Ristić, Z. (2018). Cultural tourism as a unique form of sustainable tourism—cultural resources as tourism offer factors. *Zbornik radova Ekonomskog fakulteta u Istočnom Sarajevu* 17, 63–71. doi: 10.7251/ZREFIS1817063R
- Schinas, O., and von Westarp, A. G. (2017). Assessing the impact of the maritime silk road. *J. Ocean Eng. Sci. Technol. Manag. Res.* 2, 186–195. doi: 10.1016/j.joes.2017.08.002
- Sen, T. (2023). Inventing the 'Maritime Silk Road'. *Mod. Asian Stud.* 57, 1059–1104. doi: 10.1017/S0026749X22000348
- Shang, X., Deng, X.-X., and Guo, K.-I. (2023). Using the Delphi method to construct a system for grading the quality of evidence for public health decision-making. *Chin. J. Health Policy* 16, 71–78.
- Shen, Y., Liu, J., Han, J., and Wan, X. (2024). Reconstructing the silk road network: insights from spatiotemporal patterning of UNESCO world heritage sites. *Land* 13:1401. doi: 10.3390/land13091401
- Stamboulis, Y., and Skayannis, P. (2003). Innovation strategies and technology for experience-based tourism. *Tour. Manag.* 24, 35–43. doi: 10.1016/S0261-5177(02)00047-X
- Timothy, D. J., and Boyd, S. W. (2006). Heritage tourism in the 21st century: valued traditions and new perspectives. *J. Herit. Tour.* 1, 1–16. doi: 10.1080/17438730608668462
- Wei, Z.-J. (2021). Creative transformation of folk beliefs under the "intangible cultural heritage" context. *J. Party Schl. CPC Hangzhou Munic. Committ.* 63–72. doi: 10.16072/j.cnki.1243d.20210630.001
- Winter, T. (2021). The geocultural heritage of the Silk Roads. *Int. J. Herit. Stud.* 27, 700–719. doi: 10.1080/13527258.2020.1852296
- WTO (2005). *Making Tourism More Sustainable-A Guide for Policy Makers (English Version)*. Madrid: World Tourism Organization.
- Yang, G.-X. (2024). Constructing a quality evaluation system for the integration of culture and tourism industries: a review of Quality Evaluation and Spatial Spillover Effects of Cultural and Tourism Industry Integration. *China Educ. J.* 126–132.
- Yardley, L. (2017). Demonstrating the validity of qualitative research. *J. Posit. Psychol.* 12, 295–296. doi: 10.1080/17439760.2016.1262624
- Yu, J., Safarov, S., Yi, L., Buzrukova, M., and Janzako, B. (2023). The adaptive evolution of cultural ecosystems along the Silk Road and cultural tourism heritage: a case study of 22 cultural sites on the Chinese section of the Silk Road World Heritage. *Sustainability* 15:2465. doi: 10.3390/su15032465
- Zhang, H., and Long, S. (2023). Evaluation of attraction and spatial pattern analysis of world cultural and natural heritage tourism resources in China. *PLoS ONE* 18:e0289093. doi: 10.1371/journal.pone.0289093
- Zhang, S., Lin, J., Feng, Z., Wu, Y., Zhao, Q., Liu, S., et al. (2023a). Construction of cultural heritage evaluation system and personalized cultural tourism path decision model: an international historical and cultural city. *J. Urban Manag.* 12, 96–111. doi: 10.1016/j.jum.2022.10.001
- Zhang, S., Liu, Z., Pei, T., Chan, C.-S., Wang, M., and Meng, B. (2023b). Tourism value assessment of linear cultural heritage: the case of the Beijing–Hangzhou Grand Canal in China. *Curr. Issues Tour.* 26, 47–69. doi: 10.1080/13683500.2021.2014791
- Zhang, X.-B., and Zheng, J.-L. (2019). Types and cultural heritage value of historical sites along the Maritime Silk Road in Guangdong. *Cult. Herit.* 141–148+161–162.
- Zhao, Y., and Yan, H.-M. (2021). Maritime Silk Road: knowledge production of a cultural heritage concept. *J. Palace Museum* 21–29+140. doi: 10.16319/j.cnki.0452-7402.2021.11.002
- Zheng, Y., Zhang, J., and Li, J. (2024). Gamified experience design: a case study on China's immersive tourist blocks in historic cities. *Front. Sust. Tour.* 3:1482203. doi: 10.3389/frsut.2024.1482203
- Zhou, J.-X., and Wang, Q. (2021). Cultural and tourism integration in the Guangdong–Hong Kong–Macao Greater Bay Area: practical needs, development foundations and optimization paths. *Fujian Forum* 36–45.