



Strategy for Sports Tourism to Enhance Tourist Attractions in Hengyang City

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Abstract

Background and Aims: With the help of national and local initiatives like Hunan's Outdoor Sports Industry Development Plan (2023–2025) and the National Fitness Plan (2021–2025), sports tourism has emerged as a fast-growing industry in China. Hengyang is adopting the "tourism + sports" approach to improve its city image and tourism competitiveness because of its abundant natural and cultural resources. However, its sports tourism industry is still in its infancy, with a narrow range of products, inadequate promotion, and subpar service infrastructure. There are theoretical and practical benefits in researching how sports tourism might improve Hengyang's tourist attractions. This study aims to: (1) study the current situation of sports tourism in Hengyang City. (2) Develop strategies for sports tourism to enhance tourist attractions in Hengyang City. (3) To validate the feasibility of strategies for sports tourism to enhance tourist attractions in Hengyang City.

Methodology: This study employed the research and development (R&D) research technique to examine the expansion of sports tourism in Hengyang City through questionnaire surveys and interviews. Simple random sampling was used to select 384 visitors, both male and female, between the ages of 18 and 51. They worked for the government, for companies, as independent contractors, as students, as retirees, and in other capacities. Questionnaires and semi-structured interviews were used as research tools. Quantitative data were evaluated using frequency, percentage, mean, and standard deviation, while qualitative data were examined using content analysis. Using a SWOT analysis and TOWS matrix, nine experts further verified the suggested development strategies.

Results: The findings show that Hengyang City's sports tourism industry has eight advantages, eight disadvantages, seven possibilities, and eight dangers. Strong legislative support and a wealth of sports and tourist resources are important advantages; on the other hand, inadequate product innovation and a lack of finance for new sports tourism initiatives are significant disadvantages. Four SO strategies, four ST strategies, four WO strategies, and three WT strategies with an emphasis



on resource integration, brand growth, industrial collaboration, ecological conservation, and talent nurturing were developed based on the SWOT-TOWS analysis. The suggested techniques are workable and have distinct development orientations, according to expert review.

Conclusion: Hengyang City's resource utilization efficiency is still low, despite the city's ideal natural and cultural characteristics for the combined development of sports and tourism. By putting the suggested solutions into practice, Hengyang's sports tourism may become more appealing and competitive, which will help the local sports, tourism, and cultural industries grow in a sustainable and high-quality manner.

Keywords: Strategy; Sports Tourism; Tourist Attraction; Hengyang City

Introduction:

Sports tourism, as an emerging and rapidly growing sector in China, plays an increasingly important role in promoting national fitness, cultural exchange, and regional economic development. Supported by national policies such as the National Fitness Plan (2021–2025) and the 13th Five-Year Plan for Sports Industry Development, sports tourism has become a key pathway for the integrated development of sports, culture, and tourism. China's abundant natural landscapes and rich cultural heritage provide favorable conditions for the expansion of sports tourism, accelerating its growth nationwide (General Administration of Sport, China, 2016; State Council of China, 2021)

Despite this favorable policy environment, the development of sports tourism in Hengyang City remains at an early stage. At present, tourism activities are mainly concentrated on traditional forms such as mountaineering and sightseeing at Mount Hengshan, while diversified sports tourism products—such as water sports, cycling tourism, and urban fitness events—are insufficiently developed. Problems, including limited product innovation, weak brand identity, inadequate market promotion, and low integration among sports, cultural, and tourism industries, have constrained the overall attractiveness and competitiveness of Hengyang's tourism sector. These issues reflect a structural mismatch between Hengyang's rich resource endowment and its actual development performance, forming the core problem that motivates this study. (Hengyang People's Government, 2021)

As an important node city in southern Hunan, Hengyang possesses significant natural, cultural, and transportation advantages. Improving the integration of sports and tourism is therefore not only crucial for enhancing local tourism quality and extending tourists' length of stay, but also for promoting regional economic transformation and sustainable development. However, existing studies have paid limited attention to strategy-oriented, city-level sports tourism

development from a comprehensive perspective combining resource analysis, stakeholder participation, and practical feasibility.

In summary, this study aims to systematically examine the current situation of sports tourism development in Hengyang City and to propose targeted development strategies based on SWOT and TOWS analysis. Specifically, this research seeks to optimize resource utilization, promote diversified and immersive sports tourism products, and enhance service quality and brand influence. The proposed strategies are further validated through expert consultation to ensure feasibility and practical relevance.

This study is expected to provide practical guidance for local governments, tourism enterprises, scenic area managers, and sports industry stakeholders in Hengyang, while also offering a reference for other medium-sized cities in China facing similar challenges in sports-tourism integration. By contributing strategic insights and empirical evidence, the research supports policy implementation, industrial upgrading, and sustainable development within the sports tourism sector.

Objectives:

1. To study the current situation of sports tourism in Hengyang City.
2. To develop strategies for sports tourism to enhance tourist attractions in Hengyang City.
3. To validate the feasibility of strategies for sports tourism to enhance tourist attractions in Hengyang City.

Literature review

To formulate the development strategy of sports tourism in Hengyang City, the author mainly studied the following relevant theories:

1. Theory of sports tourism

Sports tourism combines sports activities with travel experiences, serving as both a means of fitness and an extension of the national fitness plan. Many scholars view sports as the core of sports tourism, with tourism as its carrier. Literature from 1993–2014 highlights “sports-driven tourism” as a key theme, showing the central role of sports. Overall, sports tourism enhances health and leisure while promoting economic growth and social progress, reflecting its strong social and economic value.(Song & Liu, 2010; Van Rheenen et al., 2017)

Tourism demand diversification has made sports tourism mainstream. Xi'an, with abundant sports tourism resources and geographic advantages, shows a 56.9% participation rate. Activities such as mountain climbing are popular for leisure and entertainment. However, challenges include low professional quality and limited practitioner training. Factors affecting development

include consumer demand, government policy, safety, and social investment. Strategies include rational resource use, leveraging major events, promoting ethnic sports, talent cultivation, and industrial guidance(Yulei, 2017).

2. Theory of Strategy

Industrial integration involves mergers, alliances, technology platform integration, and dynamic market development, often leading to shrinking or disappearing industry boundaries. The sports and tourism industries, both comprehensive and inclusive, are increasingly integrated through resource, benefit, and goal alignment. Their mutual penetration and crossover form a new business model, breaking traditional boundaries and driving high-level coordinated development in both sectors(Huidi & Yongting, 2024).

The theory of the experience economy proposes that the innovative industry, as one of the output forms of the emerging economy, is leading the emergence of the experience economy. Enterprises change their service mode, provide diversified services with consumers as the center, and attract consumers to consume. In the process of their consumption, enterprises strive to create unforgettable scenes for consumers, create means of secondary consumption, and provide products that can be stylish, physical, or intangible services. Compared with exchangeability, tangible goods, and intangible services, the particularity of experience can be recalled. (Pine & Gilmore, 1998)

3. Theory of Tourism Attraction

Leiper's tourist attraction system consists of three elements: tourist, nucleus, and marker. Tourists generate motivation through markers that convey the meaning of the nucleus. This interaction forms the attraction mechanism and explains how tourism appeal emerges beyond physical resources. For Hengyang sports tourism, this theory highlights the need to enhance the symbolic communication of sports resources and strengthen tourists' emotional connection to optimize the overall experience and destination appeal. (Leiper, 1990). From a semiotic view, tourist attractions derive appeal not only from physical resources but also from symbolic meanings. The "ontology + symbolic meaning" model emphasizes cultural narrative, visual symbols, and shared social meanings in attraction formation. For Hengyang, integrating sports with red culture and local traditions should convey symbolic value through storytelling and emotional resonance, enhancing tourists' immersive experience. (Lu Lin, 2025)

4. Theory of SWOT analysis and TOWS Matrix

SWOT analysis is a fundamental method in management science, widely applied in strategic management, market research, and competitive analysis. It identifies Strengths (S), Weaknesses (W), Opportunities (O), and Threats (T) to assess both internal and external environments systematically. Its scientific nature lies in its structured approach—both in form, through the

construction of a four-quadrant matrix, and in content, through comprehensive environmental analysis. In recent years, SWOT analysis has been extended beyond business fields to areas such as media and sports tourism. In the digital era, applying SWOT through sports self-media platforms helps reveal internal correlations and propose targeted improvement strategies. (Wehrich, 1982; Wenting, 2019)

The TOWS matrix translates SWOT findings into actionable strategies. By matching internal and external factors, it forms four strategic types: SO (using strengths to seize opportunities), WO (overcoming weaknesses to exploit opportunities), ST (using strengths to counter threats), and WT (minimizing weaknesses to avoid threats). This tool supports scientific decision-making, resource optimization, and enhanced competitiveness in complex environments. (Wehrich, 1982)

5. Previous studies

Depin (2016) evaluated Shanxi sports cultural tourism, noting its high sports culture value, regional characteristics, and development potential. While the province possesses significant advantages for tourism projects, much potential remains untapped, indicating the need for strategic planning and resource utilization to enhance the development and visibility of sports and cultural tourism in the region.

Shujuan explored sports tourism industry characteristics and strategies, highlighting publicity, adaptability, clustering, experiential design, and sustainability. The study suggested diversified product development, broadened financing channels, regional coordination, and professional talent cultivation. The rapid growth of the leisure economy since the 21st century has accelerated the expansion and innovation of the sports tourism sector.

Shijun (2020) examined rural sports tourism in the low-carbon era, identifying benefits such as optimizing rural economic structures, resource utilization, ecological protection, and promoting low-carbon development. Key issues include resource misallocation, project homogenization, and weak low-carbon advantages. Suggested strategies involve environmental awareness, infrastructure improvement, industrial integration, branding, and differentiated project development.

Quan (2021) studied leisure sports tourism in Hengqin Island, identifying challenges including talent shortages, outdated concepts, and inadequate support systems. Recommended strategies include policy guidance, innovative development models, brand creation, technology integration, intelligent product development, and collaborative approaches to expand market opportunities and enhance industry competitiveness.

Zhenjing (2023) analyzed Ganzi Prefecture sports tourism via SWOT-AHP, identifying advantages such as rich natural resources, ethnic characteristics, and diverse tourism offerings, alongside weaknesses in facilities, professional talent, and event industrialization. Opportunities

include strong policy support and market potential, while threats include competition, investment difficulties, and weak economic foundations. Recommendations emphasized government leadership, resource development, talent cultivation, ecological protection, and integration of tourism and sports.

Conceptual Framework

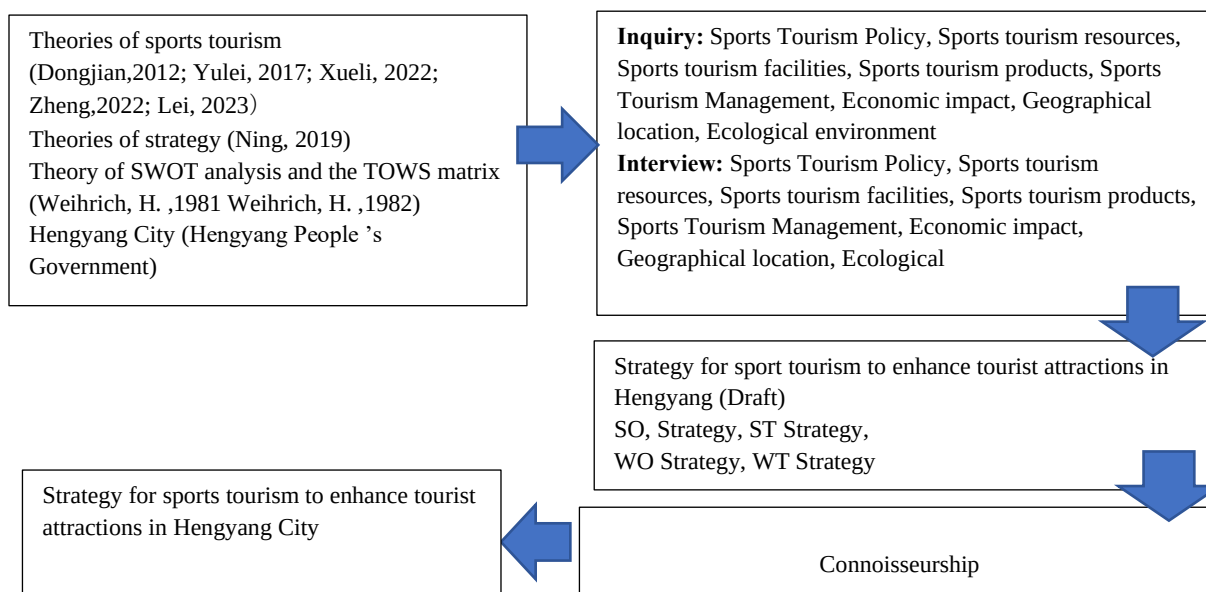


Figure 1 Conceptual Framework

Methodology

1. Research Methods

This study employed a research and development methodology. Qualitative data were primarily collected through literature review and interviews, while quantitative data were mainly collected through questionnaires.

(1) Questionnaire Survey Method: The main purpose of this study, which uses a questionnaire survey method, is to understand tourists' perceptions, experiences, and expectations of sports tourism in Hengyang City. Based on the questionnaire survey, we can provide large-sample quantitative data to objectively and comprehensively understand the opinions and needs of different groups regarding sports tourism in Hengyang City, and provide data support for the development of targeted strategies.

(2) Interview Method: Through face-to-face communication with respondents, we collected in-depth and detailed opinions from residents of Hengyang City, government tourism



department staff, and tourism industry representatives on the current status, existing problems, and development strategies of sports tourism.

2. Population and Sample

2.1 Population

The object of this study is mainly tourists from various scenic spots in Hengyang City. According to the "Hengyang City 2024 government work report, Hengyang City received a total of 1.48 million tourists in 2023. In addition, the study subjects included community residents as well as those engaged in tourism-related work, such as tourism bureau staff and other tourism-related staff.

2.2 Sample

(1) The visitor sample will cover groups of different ages, genders, gender, and income levels, ensuring diversity and representativeness. For the sample survey, 384 people were selected by simple random sampling(Krejcie & Morgan, 1970).

(2) As for the interview sample, 15 key information providers were selected by purposive sampling, including managers and staff of several tourist attractions in Hengyang (4 people), residents (3 people), staff of Hengyang Cultural and Tourism Bureau (2 people), managers of local tourism companies (3 people), and community residents (3 people).

3. Data Analysis

(1) For the data collected using interview forms, the data will mainly be analyzed through content analysis.

(2) The data collected using questionnaires will mainly be analyzed for the frequency, percentage, mean, and standard deviation through statistical methods.

(3) After conducting preliminary analysis on the data collected from questionnaire surveys and interviews, the author will use SWOT analysis to analyze the results of these data to determine the strengths, weaknesses, opportunities, and threats in the current situation of tourist attractions in Hengyang City, laying a solid foundation for formulating development strategies.

Results

1. Summary of the current situation of sports tourism in Hengyang City

In general, Hengyang City's sports tourism has certain resource advantages and policy support, with clear characteristics of tourist products and initial results of industrial collaboration. However, there is still significant room for improvement in safety and rescue, approval efficiency, product innovation, in-depth experience, high-end consumption guidance, and actual environmental protection participation.

**Table1** Basic tourist information

Content	Choice	Frequency	Percentage
Gender	Female	198	51.56
	Male	186	48.44
Age	19-30 years old	171	44.53
	31-50 years old	110	28.64
	51 years old and above	63	16.41
	18 years old and below	40	10.41
Address	Other provinces in the Chinese Mainland	221	57.55
	Other cities in Hunan Province	108	28.12
	Hengyang City	35	9.11
	Hong Kong, Macau, and Taiwan regions	20	5.21
Occupation	Employees of enterprises and institutions	178	46.35
	Staff of government agencies/public institutions	69	17.97
	Student	60	15.63
	Freelancer	57	14.84
	Other	12	3.19
	Retiree	8	2.01
Monthly income	5001-10000 yuan	187	48.64
	2001-5000 yuan	85	22.14
	Above 10001 yuan	72	18.76
	2000 yuan and below	40	10.42
In the past 12 months, how many times have you participated in leisure tourism	3-5 times	213	55.47
	1-2 times	115	39.95
	6 times or more	56	14.58



After analysis, sports tourism in Hengyang City has 8 strengths, 8 weaknesses, 7 opportunities, and 8 threats, as follows:

Strength:

Hengyang benefits from strong policy support for sports tourism, with increasing funding and active cross-departmental cooperation. The city possesses rich natural and cultural landscapes, complemented by well-developed sports facilities and mature public service systems. Its diversified sports tourism products—ranging from student research and enterprise team-building to parent-child and elderly wellness programs—show substantial market inclusiveness. As a major transportation hub, Hengyang enjoys convenient high-speed rail, air, and highway access, forming an efficient “half-hour tourism circle.” Ecological protection efforts are well implemented, and collaboration with universities helps cultivate versatile sports-tourism talents, providing a solid foundation for high-quality development.

Weakness:

However, policy execution remains inconsistent, and approval procedures are cumbersome. Sports tourism resources are scattered and weakly connected, with water-based projects limited by seasonality and insufficient professional support. Infrastructure such as signage, toilets, rescue facilities, and maintenance shows evident gaps. Products lack uniqueness and strong brand influence, resulting in short tourist stay times and low conversion. Meanwhile, transportation convenience within scenic areas is uneven, environmental protection costs are high, and versatile talents—especially in emergency response, foreign languages, and sports professionalism—remain insufficient, leading to varied service quality.

Opportunity:

The Hunan Provincial Tourism Development Conference provides Hengyang with funding opportunities, policy pilots, and increased provincial visibility. Its abundant natural and cultural resources offer potential for the creation of core IPs, while digital and intelligent management technologies are in a rapid development phase. Growing tourist expectations for immersive experiences, the night-time economy, and differentiated products create new demand. Emerging models such as event-driven tourism, study tours, and livestream commerce also broaden industry growth paths. Additionally, strengthened school-local cooperation and rising demand for compound sports-tourism talents bring favorable conditions for talent cultivation and industrial upgrading.

Threat:

If policy consistency and administrative efficiency do not improve, the attractiveness of social capital may decline, especially under competition from cities such as Changsha and Chenzhou. Ecological damage, homogenized development, and seasonal imbalance pose risks to

sustainable operations. Safety incidents may result in public opinion crises and reduced market trust. Without distinctive and innovative products, Hengyang may lose competitiveness to stronger destinations. Low per-capita spending and “ticket-dependent” models constrain economic benefits, while population outflow and talent siphoning weaken long-term competitiveness. Moreover, new reform models still require market verification, and mismatches between promotion and carrying capacity could lead to resource waste and reputation risks.

2. Results of Strategies to Enhance the Tourist Attractions in Hengyang City

Based on the SWOT analysis of sport tourism in Hengyang City, the researcher will use the TOWS matrix to propose strategies. The researcher will use the TOWS matrix to propose strategies to enhance the tourist attractions in Hengyang.

Table 2 TOWS Matrix of Sport Tourism in Hengyang City

	Strengths(S)	Weaknesses(W)
Opportunities (O)	SO1: Based on the rich mountain and water resources and red cultural heritage of Hengyang, combined with national and provincial policy support and opportunities for tourist overflow in the Greater Bay Area, we will create a composite tourism route of "Nanyue Hengshan Xiangjiang Culture Anti-Japanese War Site" to enhance the overall tourism attractiveness.	ST1: relies on the natural landscape and cultural resources advantages of Hengyang City, as well as the location conditions of the central southern transportation hub, to accelerate approval and implementation efficiency with policy and financial support. By developing high-value-added and multi-level consumer products, reducing "ticket dependence", enhancing capital return rate, attracting a sustained inflow of social capital, and avoiding diversion from Changsha, Chenzhou, and other places.
	SO2: Utilizing the advantages of a high-quality ecological environment and sports tourism development, combined with the Healthy China strategy and the health and leisure needs of middle-aged and elderly people, develop an integrated immersive experience product of "health and wellness+sports+culture" to attract	ST2: Taking advantage of Hengyang's rich landscape culture and multi-customer segmentation product advantages, we adhere to ecological priority in development to avoid resource destruction and product idleness caused by disorderly development. Creating distinctive brands through differentiated combinations such as "red culture+health



Strengths(S)	Weaknesses(W)
leisure vacation and health and wellness travelers. SO3: Leveraging Hengyang's educational and research resources and cultural heritage, taking advantage of digital and smart tourism opportunities, we aim to create a distinctive brand of "smart cultural tourism+art and sports", promote smart services, digital guidance, and interactive experiences in scenic areas, and form differentiated competitive advantages. SO4: Combining the Nanyue Temple Fair, Yancheng Folk Festivals, and sports events, relying on the city's location and transportation advantages and cultural tourism integration policy support, we aim to create a cultural, sports, and tourism integration brand of "events+festivals+tourism", expand markets both inside and outside the province, and improve tourists' stay time and consumption level.	and wellness experience+extreme sports", enhancing irreplaceable market competitiveness, and breaking through the competitive disadvantage of "no distinctive features". ST3: leverage the advantages of integrated management and industrial chain linkage of public sports venues in Hengyang, establish cross-departmental safety supervision and emergency mechanisms, and strengthen the connection management between transportation and scenic spots. Through the full chain collaboration of "catering+accommodation+transportation +cultural and creative", the concentrated travel pressure during peak season is dispersed, the risk of safety accidents and congestion is reduced, and the sense of safety and satisfaction of tourists is improved. ST4: Relying on talent training platforms in cooperation with universities, we promote comprehensive projects such as research, competitions, and scientific research, attract high-end talents to stay in Hengyang, and avoid being siphoned off by provincial capital cities. At the same time, through innovation-driven and phased pilot mechanisms, the market carrying capacity is taken into account in product promotion, the risk of trial and error is reduced, and a virtuous cycle of "talent product market" is formed to ensure the





	Strengths(S)	Weaknesses(W)
		long-term sustainable development of Hengyang tourism.
Threats(T)	WO1: Taking the Hunan Provincial Tourism Development Conference as an opportunity, promote the standardization of policy interpretation and the improvement of approval efficiency. At the same time, we will strengthen the integration and development of core IPs such as Hengshan and Xiangjiang, connect single-point resources, and improve the "last mile" transportation gap. Combining with the construction of a green sports tourism demonstration city, a comprehensive tourism pattern with efficient policies, complementary resources, and smooth transportation will be formed. WO2: Utilizing digital management and intelligent monitoring to address the shortcomings of public facilities. By combining immersive experiences, night economy, and event learning, we aim to develop differentiated sports tourism products with Hengyang characteristics, extend tourists' stay time, promote secondary consumption, gradually	WT1: Establish a cross-departmental linkage mechanism, simplify the approval process, and enhance investment confidence. At the same time, in response to the problems of weak infrastructure and low traffic efficiency, we will improve intelligent guidance and emergency plans. By avoiding the public opinion risks of sudden events and relying solely on economic factors, the overall operation of the scenic area is ensured to be more stable. WT2: Integrate dispersed resources and launch a composite product of "sports+culture+seasonal experience" to reduce off-season idleness and homogeneous competition. By creating unique 'differentiated IPs', attracting target customers, and enhancing market competitiveness. WT3: Introducing smart transportation and ecological protection measures at key transportation nodes to alleviate peak season pressure, while setting up deep consumption scenarios (cultural and creative, sports experience, night tourism economy) to increase tourist stay time and consumption. WT4: Take green ecology as the differentiation advantage of Hengyang tourism and promote environmentally



Strengths(S)	Weaknesses(W)
break away from "ticket dependence", and enhance the overall consumption level. WO3: Introduce environmental education and smart cleaning facilities through core scenic spots to reduce the pressure on enterprises and enhance tourists' awareness of environmental protection. At the same time, combining green sports tourism with health and leisure products, promoting the innovative model of "ecology+sports+culture", and enhancing the brand value of Hengyang in green tourism and sustainable development. WO4: Based on school local cooperation and competition learning platforms, cultivate composite tour guides, emergency rescue and foreign language talents; By introducing new product design and service etiquette training through the creative team, we aim to address the shortcomings of uneven service and lack of unique brands, and comprehensively enhance tourists' sense of security, satisfaction, and stickiness to Hengyang tourism.	friendly construction; At the same time, establish a school local cooperation mechanism to cultivate versatile sports tourism talents (foreign language tour guides, outdoor safety, event planning). By driving both ecology and talent, gradually enhance the core competitiveness of the scenic area.

3. Results of Evaluation of Hengyang City's Sports Tourism Development Strategies to Enhance the Tourist Attractions





To assess the feasibility of the researchers' proposed sports tourism development strategies in enhancing the attractiveness of Hengyang's scenic spots, this phase will utilize an expert review process. The author invited 9 experts, including 3 professors from Hengyang Normal University and Central South University of Forestry and Technology, as well as the directors and deputy directors of the Hengyang Municipal Bureau of Culture, Tourism, Radio, Television, and Sports, and the director of the Gouloufeng Scenic Area Management Center. In addition, the general manager of the travel agency and local tour guide representatives, a total of 9 people, participated in this evaluation, along with local tour guide representatives, a total of 9 experts, to participate in the review process, aiming to optimize and refine the proposed strategies.

Overall, the 9 experts agreed that the proposed strategy is highly feasible, consistent with the current state of Hengyang City's sport tourism industry, and meets future development needs. However, some strategies still require appropriate adjustments and optimization. Following the experts' recommendations, the finalized strategies include: 4 SO strategies, 4 ST strategies, 4 WO strategies, and 3 WT strategies, as follows:

SO1: Based on the rich mountain and water resources and red cultural heritage of Hengyang, combined with national and provincial policy support and opportunities for tourist overflow in the Greater Bay Area, we will create a composite tourism route of "Nanyue Hengshan Xiangjiang Culture Anti-Japanese War Site" to enhance the overall tourism attractiveness.

SO2: Utilizing the advantages of a high-quality ecological environment and sports tourism development, combined with the Healthy China strategy and the health and leisure needs of middle-aged and elderly people, develop an integrated immersive experience product of "health and wellness+sports+culture" to attract leisure vacation and health and wellness travelers.

SO3: Leverage Hengyang's educational and scientific research resources and cultural heritage, capitalize on digitalization and smart tourism opportunities, create a distinctive brand of "smart cultural tourism + culture and sports", promote smart services, digital guides, and interactive experiences in scenic spots, and form a differentiated competitive advantage.

SO4: Combining the Nanyue Temple Fair, Yancheng Folk Festivals, and sports events, relying on the city's location and transportation advantages and cultural tourism integration policy support, we aim to create a cultural, sports, and tourism integration brand of "events+festivals+tourism", expand markets both inside and outside the province, and improve tourists' stay time and consumption level.

ST1: Leveraging Hengyang's natural and cultural resources, as well as its strategic location as a transportation hub in central and southern China, the city will accelerate approval and fulfillment efficiency with policy and financial support. By developing high-value-added, multi-tiered consumer products, the city will reduce ticket dependency, enhance capital returns, attract





investment, and strengthen tourist linkages and cooperation with Changsha, Chenzhou, and other areas, ultimately promoting the overall development of regional sports tourism.

ST2: Taking advantage of Hengyang's rich landscape culture and multi-customer segmentation product advantages, we adhere to ecological priority in development to avoid resource destruction and product idleness caused by disorderly development. Creating distinctive brands through differentiated combinations such as "red culture+health and wellness experience+extreme sports", enhancing irreplaceable market competitiveness, and breaking through the competitive disadvantage of "no distinctive features".

ST3: leverage the advantages of integrated management and industrial chain linkage of public sports venues in Hengyang, establish cross-departmental safety supervision and emergency mechanisms, and strengthen the connection management between transportation and scenic spots. Through the full chain collaboration of "catering+accommodation+transportation+cultural and creative", the concentrated travel pressure during peak season is dispersed, the risk of safety accidents and congestion is reduced, and the sense of safety and satisfaction of tourists is improved.

ST4: Leveraging the government's preferential policies for talent introduction and talent development platforms established through collaboration with universities, we will promote integrated programs such as research and study tours, sports events, and scientific research to attract high-end talent to Hengyang. Furthermore, through innovation-driven and phased pilot programs, we will consider market capacity when promoting products, reduce the risk of trial and error, and establish a virtuous cycle of "talent-product-market" to ensure the long-term sustainable development of Hengyang's tourism.

WO1: Leveraging the Hunan Provincial Tourism Development Conference, we will promote unified policy interpretation and streamlined approval processes. We will strengthen the integrated development of core IPs such as those in Hengshan and Xiangjiang River, connecting single-point resources. We will introduce smart transportation and ecological protection initiatives at key transportation nodes to address shortcomings in the "last mile" of transportation. Combined with the development of a green sports tourism demonstration city, we will foster a comprehensive tourism landscape characterized by effective policies, complementary resources, and smooth transportation.

WO2: Use digital management and intelligent monitoring to make up for the shortcomings of public facilities; combine immersive experience, night economy, and event study; add in-depth consumption scenarios such as cultural and creative industries and sports experience; develop differentiated sports tourism products with Hengyang characteristics, extend tourists' stay time, promote secondary consumption, gradually with Hengyang characteristics, extend tourists' stay





time, promote secondary consumption, gradually get rid of "ticket dependence", and improve the overall consumption level.

WO3: Introduce environmental education and smart cleaning facilities through core scenic spots to reduce the pressure on enterprises and enhance tourists' awareness of environmental protection. At the same time, combining green sports tourism with health and leisure products, promoting the innovative model of "ecology+sports+culture", and enhancing the brand value of Hengyang in green tourism and sustainable development.

WO4: Based on school local cooperation and competition learning platforms, cultivate composite tour guides, emergency rescue and foreign language talents; By introducing new product design and service etiquette training through the creative team, we aim to address the shortcomings of uneven service and lack of unique brands, and comprehensively enhance tourists' sense of security, satisfaction, and stickiness to Hengyang tourism.

WT1: Establish a cross-departmental linkage mechanism, simplify the approval process, and enhance investment confidence. At the same time, in response to the problems of weak infrastructure and low traffic efficiency, we will improve intelligent guidance and emergency plans. By avoiding the public opinion risks of sudden events and relying solely on economic factors, the overall operation of the scenic area is ensured to be more stable.

WT2: Integrate dispersed resources and launch a composite product of "sports+culture+seasonal experience" to reduce off-season idleness and homogeneous competition. By creating unique 'differentiated IPs', attracting target customers, and enhancing market competitiveness.

WT3: Take green ecology as the differentiation advantage of Hengyang tourism and promote environmentally friendly construction; At the same time, establish a school local cooperation mechanism to cultivate versatile sports tourism talents (foreign language tour guides, outdoor safety, event planning). By driving both ecology and talent, gradually enhance the core competitiveness of the scenic area.

Discussion

This research assesses the level of development and path for the development of sports tourism in Hengyang City through a mixed methods approach, including questionnaire surveys, in-depth interviews, SWOT-TOWS analysis, and expert validation. The results of this study show that Hengyang City has a relatively good foundation for the development of sports tourism, but also has structural problems and some management constraints. From the results of this study, the following analyses can be drawn.





First, the results of this study show that Hengyang City has a strong comparative advantage in landscape, red cultural resources, transportation, and policy. This conclusion is similar to Leiper's (1990) tourist attraction system theory, which pointed out that the main component of a tourism destination's attractiveness is the synergy of the core attraction element and its surrounding accessibility and supporting system. If any of the three is in a leading position, the tourism destination will be competitive in the market. Quan (2021) and Zheng (2015) also found that the formation of a tourism destination's strong pull factors and market advantages is related to unique natural resources and rich cultural resources, and when these resources are supported by the preferential policies of the government, it is more likely to form a more attractive appeal. The unique value of Hengyang's red cultural tourism resources can not only become the center of the city's tourism market, but also is consistent with the view of Depin (2016), which pointed out that sports tourism integrated with local characteristics or city emblems is more likely to become a carrier for further enhancing the attractiveness of the destination.

Second, this study identifies several development constraints, including homogeneity of product experience, insufficient brand positioning, lack of professional talent, and uneven quality of supporting infrastructure. These problems are similar to many studies on sports tourism development in China, where the development of most local sports tourism destinations faces homogenization of products and weak market positioning, which hinders the development of industry competitiveness and extension of market chains. Scholars such as Shujuan (2018) and Shijun (2020) found that the design of local sports tourism destinations generally used the same product model, which not only weakened the market competitiveness of sports tourism destinations, but also led to the phenomenon that the repeated visitation rate of tourists was very low. In addition, the lack of professional talent, especially interdisciplinary talent, is also a common research consensus on the restraint of the high-quality development of sports tourism in China. Yulei (2017) and several other scholars pointed out that a prominent feature of the current sports tourism industry is the lack of professional and technical talents in the sports and tourism industry, and the lack of professional and technical talents who can master sports management and tourism planning at the same time, which has become an important bottleneck restricting the high-quality development of the sports tourism industry. The existence of the problem of unbalanced development in supporting infrastructure is consistent with the view of Huidi and Yongting (2024) that regional differences in public service facilities directly affect the degree of sustainable coordination between the sports industry and the tourism industry.

Third, this study summarized the formulation of SO, ST, WO, and WT strategies based on the theory of SWOT-TOWS and gave targeted recommendations for integrating sports resources, focusing on innovation, protecting resources, smart tourism, safety governance, and cultivation of





talents, etc. First of all, the SO strategy was put forward to use the internal resources and advantages of the sports tourism industry to seize external opportunities to gain market competitive advantage, which is also consistent with Pine and Gilmore's (1998) experience economy theory, which points out that with the in-depth development of the tourism market, tourists are more concerned about the content and depth of experience, and resource integration and product innovation can also make tourists have an immersive and unique experience to improve their satisfaction with tourism products. Integrating and developing sports tourism with cultural elements not only can improve the endogenous attractiveness of sports tourism, but also can give full play to the emotional experience and participation of tourists. In addition, in order to make tourists feel the attractiveness and value of the resource integration and sports tourism experience, the regional sports tourism industry can continue to integrate and develop in the background of ecological protection.

The ST strategy proposed in this study is to take full advantage of the inherent advantages of the sports tourism industry to reduce and avoid external risks and security problems. This strategy is also similar to the research perspective of the World Bank, which pointed out that to form sustainable market competitiveness in the long term, it is also necessary to consider ecological protection and prevent damage to the natural environment and safety and security risks in the process of sports tourism development (Van Rhee et al., 2017). Meanwhile, this study suggests that the use of a WO strategy can transform the inherent weakness of insufficient brand advantage into a new advantage by fully leveraging policy support and making use of new development trends such as smart tourism and intelligent digital platforms. This strategy is in line with Weihrich's (1982) view on the TOWS matrix theory. According to Weihrich's view, in the transformation of weaknesses, the four strategies (SO, ST, WO, WT) could all be used, but the WO strategy should be given priority. The reason is that the lack of improvement in the internal environment is not only a common concern of sports tourism development, but also often needs to use external resources and opportunities to be improved.

Finally, the WT strategy proposed in this study is to curb and avoid risks by institutional optimization and talent cultivation, which is also consistent with the research and views of Song Jie et al. (2010). Song Jie et al. (2010) found that only through systematic governance and cross-departmental collaboration could the risks faced by the sports tourism system be effectively reduced. Talent training mechanisms and interdepartmental coordination could then improve the governance capacity of the government, so that the system itself had stronger resistance capabilities. In addition, the expert evaluation in this study further validated the feasibility, suitability, and practicability of the strategies and methods for the development of sports tourism in Hengyang, and also ensured the reliability of this study, which is also in line with Krejcie and



Morgan's (1970) view that the larger the sample and the more experienced the evaluator, the higher the reliability of the conclusion will be.

In conclusion, this study not only further confirmed the correctness and feasibility of relevant theories and previous research findings in the process of sports tourism development research, but also put forward the specific development path for the development of sports tourism in Hengyang City, which is of reference significance for other medium-sized cities with similar development conditions.

The findings of this study are largely consistent with previous research on sports tourism development in China. Similar to (Zheng, 2015) and (Zhenjing, 2023), this study confirms that insufficient product differentiation and talent shortages are common bottlenecks restricting sports tourism growth in regional cities. The emphasis on integrating natural landscapes and cultural resources echoes the argument that localized resource endowment is the core driver of sports tourism competitiveness. Compared with earlier studies, this research further extends existing frameworks by highlighting immersive experience design, smart tourism applications, and health-oriented sports tourism products. The proposed "health + sports + culture" model responds to the growing demand for wellness tourism identified by Shujuan (Shujuan, 2018), while the incorporation of digital services and smart management aligns with the call for green, low-carbon, and technology-enabled tourism development. In addition, expert feedback reinforced the importance of shifting from fragmented development toward coordinated regional integration and proactive policy implementation. This supports the view that improving safety systems, transportation linkages, and service quality is essential for enhancing tourist satisfaction and destination competitiveness. Overall, the results demonstrate that Hengyang's sports tourism development requires not only resource advantages but also systematic planning, cross-sector collaboration, and innovation-driven mechanisms.

Based on the above findings and discussions, it is suggested that Hengyang City prioritize integrated planning for sports, culture, and tourism, emphasizing differentiated product development rooted in local identity and ecological protection. Policymakers should strengthen digital empowerment, improve safety supervision and infrastructure coordination, and reduce dependence on ticket-based revenue models through diversified consumption scenarios. At the same time, talent cultivation should be promoted through school-local cooperation, professional training, and incentive policies to support long-term innovation. By combining policy guidance, market mechanisms, and sustainable development principles, Hengyang can gradually build a competitive, resilient, and high-quality sports tourism system with strong regional influence.



Conclusion

This study investigated the development conditions and strategic optimization of sports tourism in Hengyang City based on questionnaire surveys, interviews, and SWOT-TOWS analysis. The results indicate that Hengyang possesses favorable foundations for sports tourism development, supported by its natural and cultural resources, geographic accessibility, and policy environment, but its overall development level still requires systematic improvement.

However, although the market base is relatively solid, a more desirable outcome would be the formation of diversified, high-value, and immersive sports tourism products supported by strong branding, professional services, and integrated resource utilization. This goal has not yet been fully achieved due to issues such as homogeneous product structures, insufficient in-depth experience design, weak supporting facilities, and shortages of professional and interdisciplinary talent. Therefore, it is necessary to further implement targeted strategies focusing on resource integration, product innovation, service quality improvement, and talent cultivation. These measures are expected to enhance tourist satisfaction, extend the length of stay, stimulate secondary consumption, and ultimately promote the sustainable and high-quality development of sports tourism in Hengyang City.

Recommendation

(1) Future studies may focus on building a dynamic monitoring system for Hengyang's sports tourism by integrating big data, GIS spatial analysis, and tourist portrait models. Through empirical tracking of tourist flows, consumption behaviors, and participation in sports activities, researchers can further explore the interaction between scenic resource attractiveness and sports activity design. In addition, research may investigate how sports activities influence tourists' emotional engagement, physical participation, and immersive experience, and develop a localized evaluation index system for sports tourism experience quality. Theoretical exploration should also emphasize how sports tourism enhances scenic attraction from psychological, behavioral, and cultural identity dimensions, thus offering academic support for innovative experience design.

(2) In practical application, sports tourism should be integrated with cultural heritage conservation, ecological tourism, health and leisure industries, and local economic development to establish a systematic framework for "sports-culture-tourism integration." Efforts should be made to shape a sustainable brand narrative rooted in local identity while protecting Hengyang's red cultural heritage and natural ecology. At the same time, benchmarking successful sports tourism cases from cities such as Zhangjiajie, Guilin, and Chiang Mai can help identify Hengyang's gaps in policy support, market promotion, and experience innovation. Strengthening linkage mechanisms between the Guangdong-Hong Kong-Macao Greater Bay Area and the Southern





Hunan urban cluster will further enhance Hengyang's tourism competitiveness, industry synergy, and brand influence under a regional integration perspective.

References

- Depin, X. Y. L. Y. Z. (2016). Research on the evaluation and development of sports and cultural tourism resources in Shanxi. *Sports Culture Guide*, 4, 122–142.
- General Administration of Sport of China. (2016). *Thirteenth Five-Year Plan for the development of the sports industry*. State Council of the People's Republic of China.
- Hengyang People's Government. (2021). *14th Five-Year Plan for the development of culture, tourism, radio, television, and sports (2021–2025)*.
<https://www.hengyang.gov.cn/wlgtj/zwgk/ghjh/20220315/i2641632.html>
- Huidi, Z., & Yongting, Z. (2024). Research on the dynamic mechanism and promotion path of the integration of China's sports and tourism industry in the new era. *Journal of Jilin Sport University*, 40(6), 47–53. <https://doi.org/10.13720/j.cnki.22-1286.2024.06.012>
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610.
<https://doi.org/10.1177/001316447003000308>
- Leiper, N. (1990). Tourist attraction systems. *Annals of Tourism Research*, 17(3), 367–384.
[https://doi.org/10.1016/0160-7383\(90\)90004-B](https://doi.org/10.1016/0160-7383(90)90004-B)
- Lu, L., Chen, J., Cui, J., & Jiang, W. (2025). Construction of rural tourism attractions from a semiotic perspective: A case study of Huangling Sun-Drying Autumn in Wuyuan. *Human Geography*, 40(1), 162–169. <https://doi.org/10.13959/j.issn.1003-2398.2025.01.017>
- Pine, B. J., II, & Gilmore, J. H. (1998). Welcome to the experience economy. *Harvard Business Review*, 76(4), 97–105.
- Quan, C. (2021). Present situation and countermeasures research of the development of leisure sports tourism in Hengqin Island. *Journal of Guangzhou Sport University*, 41(4), 49–52.
- Shijun, W. (2020). On the development strategy of rural sports tourism of China in the low-carbon era. *Journal of Lianyungang Normal College*, 37(4), 94–97.
- Shujuan, S. L. Y. (2018). Characteristics and development strategies of the sports tourism industry. *Contemporary Sports Technology*, 8(28), 222, 224.
- Song Jie, S. Q., & Liu, H. (2010). Research on the influencing factors of the sports tourism system with the WSR analysis framework. *China Sport Science and Technology*, 46(5), 139–145.
- State Council of the People's Republic of China. (2021). *National Fitness Plan (2021–2025)*.
- Van Meter, D. S., & Van Horn, C. E. (1976). The implementation of intergovernmental policy. *Public Administration Review*, 35(6), 447–462.





- Van Rheenen, D., Cernaianu, S., & Sobry, C. (2017). Defining sport tourism: A content analysis of an evolving epistemology. *Journal of Sport & Tourism*, 21(2), 75–93.
<https://doi.org/10.1080/14775085.2016.1229212>
- Weirich, H. (1982). The TOWS matrix—A tool for situational analysis. *Long Range Planning*, 15(2), 54–66. [https://doi.org/10.1016/0024-6301\(82\)90120-0](https://doi.org/10.1016/0024-6301(82)90120-0)
- Wenting, Y. (2019). *Research on the SWOT analysis and development strategies of “Yang Yi Talk” WeChat public account* (Master’s thesis). Chinese Master’s Theses Full-text Database.
- Yulei, G. (2017). *A study on the influence factors of sports tourism development in the Xi’an region* (Master’s thesis, Xi’an Physical Education University).
- Zheng, Z. Z. H. (2015). Development strategy of marine sports tourism from the perspective of experience economy: A case study of Hainan Province. *Social Scientist*, 11, 87–91.
- Zhenjing, Z. (2023). *Analysis of sports tourism development strategy in Ganzi Prefecture based on SWOT-AHP* (Master’s thesis, Sichuan University of Science & Engineering).
<https://link.cnki.net/doi/10.27796/d.cnki.ghbsf.2023.000025>

