

Research on the Sustainable Development of Event Tourism in Luoyang from the Perspective of Sports-Tourism Integration

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Abstract: As a renowned historical and cultural city, Luoyang boasts a wealth of tourism resources, including sports venues, natural landscapes, and cultural heritage sites, laying a solid foundation for the integrated development of the tourism industry and sports events in recent years, with remarkable achievements in practice. However, from the perspective of sports-tourism integration, Luoyang's event tourism still faces a prominent issue of uneven development: a surge in tourists during peak seasons, leading to overcrowded attractions, and a scarcity of visitors during off-peak seasons, resulting in idle resources. This not only leads to inefficient resource utilization but also restricts the enhancement of economic benefits and hinders sustainable development. In light of this, this paper comprehensively employs literature research, case analysis, and fieldwork methods to systematically analyze the current development status of event tourism in Luoyang within the context of sports-tourism integration. The aim is to provide theoretical and practical support for achieving high-quality and balanced development of local event tourism, offering valuable references for addressing the issue of uneven development and moving towards a sustainable future.

Keywords: Event tourism; Luoyang; Sports-tourism integration; Sustainable development

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1. Introduction

1.1. Research background

In recent years, the global sports tourism market has shown a vigorous development trend, with a growing variety of products such as sports event tourism, outdoor sports tourism, and sports-themed vacations, attracting a large number of tourists. In China, sports tourism has also received strong support from national policies. The "Several Opinions of the State Council on Accelerating the Development of the Sports Industry and Promoting Sports

Consumption” explicitly proposes to vigorously develop sports tourism and create influential sports tourism boutique routes and events. Leveraging its resource base and policy support, Luoyang has witnessed thriving development in event tourism.

However, compared with some advanced event tourism destinations at home and abroad, Luoyang’s event tourism still faces some problems and challenges during its development, such as insufficient brand influence of events, inadequate tourism support services, and insufficient integration of events and tourism.

1.2. Research objectives

The primary objective of this study is to comprehensively analyze the current development status of event tourism in Luoyang. Specifically, this includes the following aspects:

- (1) To sort out the development history of event tourism in Luoyang, analyze the basic conditions of current event tourism, such as types, scales, and participant demographics, and understand its position and role in the tourism market;
- (2) To conduct an in-depth analysis of the problems and causes in the development of event tourism in Luoyang from multiple dimensions, including event brand building, tourism support facilities, the degree of integration between events and tourism, and marketing;
- (3) To draw on the experiences of successful event tourism cases at home and abroad, and, in combination with the actual situation in Luoyang, propose innovative strategies and recommendations suitable for the development of event tourism in Luoyang;
- (4) To provide theoretical support and practical guidance for the sustainable development of event tourism in Luoyang, helping Luoyang become an event tourism destination with international influence.

1.3. Literature review

Scholars both domestically and abroad have conducted in-depth research on issues related to the development of the event tourism industry, which can be broadly categorized into four main areas: market development of the event tourism industry in Luoyang, as well as the relationships between event tourism and residents, culture, and industry. Among these, literature research on the relationship between event tourism and residents accounts for the largest proportion, while there is relatively little research on the regional event tourism industry in Luoyang.

From the perspective of market development in Luoyang’s event tourism industry, scholars such as Sun et al. conducted relevant research in 2021 using SWOT analysis to examine the development of the sports tourism industry in the Luoyang region. They provided a detailed analysis of its current status and future development issues, offering a comprehensive conceptual framework for the development of outdoor sports event tourism in Luoyang and proposing corresponding development recommendations^[1].

Regarding research on the relationship between event tourism and residents and participants, scholars such as Zhou et al. took marathons as an example in 2023, collecting data through interviews and using grounded theory to analyze the liminal experiences of participants in mass sports events. They found that the liminal experience of marathon participants is a growth process that includes anticipation, release, inversion, transcendence, and self-breakthrough^[2]. This enriches the research content of liminal theory and reveals the experience construction mechanism of participants.

In 2020, scholars such as Hu et al. studied the motivations and influencing factors of sports event tourists through questionnaires and statistical analysis. They found differences in motivations among tourists of

different genders, ages, education levels, and occupational statuses, and proposed corresponding development recommendations ^[3].

From the perspective of cultural integration and development in event tourism, in 2023, scholar Yu explored the role of experiential sports tourism in the inheritance of intangible cultural heritage of traditional ethnic sports. She proposed suggestions for establishing activity venues, cultivating talent, strengthening institutional construction, and increasing publicity ^[4].

From the perspectives of event tourism, industry, and value co-creation, scholars Wang and Wu studied the development status of China's sports event tourism industry in the context of all-for-one tourism in 2020. They pointed out issues such as inadequate industrial synergy systems and imperfect resource development systems, and proposed optimization paths such as platform optimization and resource optimization ^[5].

In summary, research by numerous scholars both domestically and internationally has covered multiple perspectives, including the relationships between event tourism industry and residents, culture, and industry, as well as various aspects such as sports tourism, event experiences, cultural heritage preservation, and event impact assessments. However, there is relatively little regional research on event tourism in Luoyang, particularly analyses concerning the balanced development of event tourism in Luoyang.

On one hand, Luoyang has been continuously increasing its efforts to develop the tourism industry in recent years, with event tourism experiencing rapid growth and exhibiting significant market potential. On the other hand, event tourism can also achieve integrated development with various industries such as culture, health, and agriculture, continuously promoting the expansion of emerging industry market sizes.

Therefore, this study on the sustainable development of Luoyang's event tourism industry contributes to promoting balanced development in the regional tourism industry.

2. Main text

2.1. Development status

2.1.1. Overview of Luoyang's tourism resources

In terms of natural tourism resources, Luoyang is characterized by its topography, which is higher in the west and lower in the east, with diverse landscapes featuring both mountains and waters. To the north lies Xiaolangdi, a benchmark for Yellow River management and a global challenge in water conservancy; to the south stands Baiyun Mountain, with 98.5% forest coverage, 37 peaks over 1,500 meters, and Yuhuangding Peak at 2,216 meters, the highest in Central China, offering a blend of sightseeing, summer retreat, scientific research, and exploration.

In terms of cultural heritage, Luoyang shines even brighter. The Longmen Grottoes represent the largest and most prolific stone carving treasure trove, hailed by UNESCO as the "pinnacle of Chinese stone carvings"; the White Horse Temple is China's first officially sponsored Buddhist temple, known as the "Ancestral Court" and the "Origin of Buddhism." Additionally, Luoyang boasts numerous historical and cultural relics such as the Sui and Tang Dynasties Luoyang City National Heritage Park, the Yingtian Gate Site Museum, and Guanlin, all of which are invaluable resources for developing event tourism in Luoyang.

2.1.2. Achievements in the development of sports event tourism

In recent years, Luoyang has achieved remarkable results in the development of sports event tourism. It has hosted large-scale comprehensive events such as the Henan Provincial Games and the UCI Junior Track Cycling World Championships, as well as professional events like the CBSA Ding Junhui vs. Ronnie O'Sullivan Masters and

the China National Track Cycling League. Additionally, there are mass events such as the “Luoyang Table Tennis King” tournament and the New Year’s Day Long-Distance Run and Half Marathon. The hosting of these events has attracted a large number of athletes, spectators, and tourists, laying a solid foundation for the development of sports event tourism in Luoyang.

Taking the 14th Henan Provincial Games in 2023 as an example, the opening ceremony was held at the Yingtianmen Gate Site of the Sui and Tang Dynasties Luoyang City. The unique venue selection and splendid cultural performances drew significant attention. During the event, the number of visitors to nearby attractions such as the Luoyi Ancient City increased substantially, leading to a notable rise in tourism revenue.

Through media coverage of these events, Luoyang’s city image and cultural characteristics have been widely disseminated. The CBSA Ding Junhui vs. Ronnie O’Sullivan Masters, held at the Longmen Grottoes Scenic Area, featuring two of the world’s top snooker players showcased their skills at this UNESCO World Heritage Site. This event attracted global media attention, showcasing the highlights and unique features of the Longmen Grottoes to a worldwide audience. It achieved a “two-way empowerment” and “mutual pursuit” between the event and cultural tourism, significantly enhancing Luoyang’s international visibility. More and more people have come to know Luoyang through these events, developing a strong interest in the city and being attracted to visit, further driving the development of sports event tourism in Luoyang.

2.1.3. Case analysis of sports event tourism

(a) The 14th Henan provincial games

In 2023, Luoyang hosted the 14th Henan Provincial Games, showcasing unique innovations in various aspects, particularly with the opening ceremony held at Yingtianmen Gate, which became a major highlight. Against the backdrop of the city and with historical sites as the stage, a dazzling “Ancient Capital Runway” was created, transforming the entry “ceremony” into an entry “into the city” ceremony. This transformed the millennia-old “major historical site” into a stylish and vibrant “reception hall,” presenting a carnival that vividly blends “sports events” with “cultural tourism and creativity.” Innovative use of new technologies such as 3D without glasses provided the audience with a realistic and stunning visual experience, creating a highly attractive light and shadow show that perfectly balanced atmosphere and ceremony.

During the opening ceremony, the online click-through rate exceeded 200 million. Through reports by major media outlets and dissemination on social media, Luoyang’s city image was widely promoted. In terms of tourism promotion, Yingtian Gate has become a popular tourist attraction in Luoyang. The tourism facilities around Yingtian Gate have also been further improved, with the catering, accommodation, shopping, and other service industries seizing development opportunities. Additionally, the hosting of the provincial games has driven the development of other tourist attractions in Luoyang, such as the Longmen Grottoes and the White Horse Temple, which have also seen an increase in visitor numbers, promoting the overall development of Luoyang’s tourism industry.

(b) CBSA Ding Junhui vs. Ronnie O’Sullivan masters match

In 2024, the CBSA Ding Junhui vs. Ronnie O’Sullivan masters match was held at the Longmen Grottoes scenic area in Luoyang, serving as a classic example of the “mutual empowerment” between sports events and cultural tourism. During the event, global media focused on the Longmen Grottoes, showcasing the scenic area’s magnificent scenery, rich history, and unique culture to audiences worldwide. Through television broadcasts, online live streams, and other means, the popularity of the Longmen Grottoes soared, attracting more attention

from domestic and international tourists. Many people who previously knew little about the Longmen Grottoes developed a keen interest because of this event and began planning visits.

From the perspective of enhancing tourism appeal, the hosting of the masters match brought a large number of tourists to the Longmen Grottoes scenic area. In addition to fans who came to watch the matches, many visitors were drawn by the unique atmosphere of the event's integration with culture. Besides watching the matches, they explored the Longmen Grottoes scenic area in depth, admiring the exquisite Buddha sculptures and learning about the historical and cultural background of the grottoes.

(c) New Year's day long-distance run and half marathon event

The New Year's day long-distance run and half marathon event, a key initiative in Luoyang, has become a widely influential sports event in the region. Taking the year 2025 as an example, this competition attracted over 15,000 runners from across the country, with more than half of them hailing from outside Luoyang. During the event, the organizing committee worked closely with local tourism departments and businesses in Luoyang to provide foreign runners with a rich tourism experience.

From the perspective of disseminating urban culture, the New Year's day long-distance run and half marathon event has provided an excellent platform for the promotion of Luoyang's urban culture. The event route was meticulously designed, passing by numerous iconic buildings and historical and cultural landmarks in Luoyang. Additionally, the event featured performances by local folk artists, such as dragon and lion dances and Heluo Grand Drum performances, allowing runners and spectators to appreciate the unique charm of Luoyang's traditional culture.

From the perspective of promoting the integrated development of sports and tourism, the New Year's day long-distance run and half marathon event has played a positive and exemplary role. By attracting tourists through the event, it has stimulated tourism consumption while enriching the event experience with tourism resources, achieving mutual promotion and common development between sports and tourism. During the event, Luoyang's hotel, catering, transportation, and other industries experienced a peak in consumption, contributing to the local economy. Tourism enterprises have also actively developed tourism products related to the event.

2.2. Research on development challenges

2.2.1. Inadequate product development

Currently, the types of event tourism products in Luoyang are relatively limited, primarily consisting of spectator and participatory event tourism products, lacking innovation and distinctiveness. In terms of spectator event tourism, most offerings involve watching traditional sports events such as basketball, football, and table tennis, with relatively conventional event formats and content that lacks innovative activities capable of attracting tourists' attention.

Among the participatory event tourism products, outdoor sports such as marathons and mountain climbing are the most common, leading to a severe problem of product homogenization. Many cities are hosting marathon events, and Luoyang's marathon event fails to stand out with differentiated competitive advantages in terms of product design and experience creation, making it difficult to meet the diverse needs of tourists. Meanwhile, for some emerging participatory event tourism projects, such as e-sports tourism and extreme sports tourism, Luoyang's development efforts are insufficient and fail to keep up with market trends.

2.2.2. Shallow integration depth

There is a lack of synergy in resource integration between events and tourism. Luoyang boasts abundant

tourism resources and conditions for hosting sports events. However, in actual development, communication and collaboration between the sports and tourism departments are not close enough, failing to form an effective resource integration mechanism. The organization and operation of sports events often focus solely on the events themselves, neglecting the integration with tourism resources and failing to fully consider how to leverage events to attract tourists and drive tourism consumption. On the other hand, when developing and promoting tourism products, the tourism department also fails to adequately plan and promote sports events as important tourist attractions.

In terms of service support, the integration of events and tourism is also inadequate. During event periods, tourists' demand for tourism services such as accommodation, dining, and transportation significantly increases. However, Luoyang currently has shortcomings in terms of service support for event tourism. Accommodation facilities around some event venues are insufficient, especially during peak tourist seasons and large-scale events, when hotels are in short supply and prices are excessively high, affecting tourist satisfaction. In terms of transportation, the connection between event venues and tourist attractions is not smooth enough, and public transportation capacity is insufficient, causing inconvenience for tourists.

2.2.3. Inadequate facilities and services

Luoyang's transportation infrastructure still faces some issues in the development of event tourism. Due to the influx of a large number of tourists attracted by events, the traffic volume on urban roads has surged, yet Luoyang's transportation network appears inadequate in handling such peak traffic flows.

In terms of accommodation, there is a certain gap in both quantity and quality of Luoyang's lodging facilities. During the event period, the sudden increase in tourist numbers has led to a significant rise in accommodation demand, which Luoyang's lodging facilities cannot fully meet, especially in terms of a relative shortage of mid-to-high-end accommodation resources. Regarding catering, although Luoyang boasts a rich culinary culture, the quality and distinctiveness of catering services have not been fully showcased in event tourism services. Catering venues around the event venues often primarily offer fast food and snacks, lacking the supply of main courses with local characteristics.

2.2.4. Limited brand influence

There are numerous issues in the brand construction of Luoyang's event tourism, resulting in low brand awareness and reputation. In terms of brand positioning, Luoyang's event tourism lacks a clear and unique brand identity.

Regarding brand communication, the promotion efforts for Luoyang's event tourism are insufficient, with limited communication channels and methods. Meanwhile, the content of event tourism brand communication lacks appeal and fails to fully demonstrate the unique charm and value of Luoyang's event tourism, making it difficult to stimulate tourists' interest and desire.

2.3. Analysis of balanced development strategies

2.3.1. Innovative development of event tourism products

Fully tapping into Luoyang's unique historical culture, natural landscapes, and folk customs, and developing themed event tourism products with local characteristics are key measures to promote the development of Luoyang's event tourism. Leveraging abundant cultural resources, the development of cultural experience-based event tourism products enables tourists to gain an in-depth understanding of Luoyang's historical culture while

participating in events.

An “Ancient Capital Cultural Marathon” could be organized, integrating marathon events with Luoyang’s historical and cultural landmarks. A unique race route could be designed, allowing runners to traverse the millennia-old ancient capital, experiencing the stone carving art of the Longmen Grottoes, the Buddhist culture of the White Horse Temple, and the architectural style of the Sui and Tang Dynasties Luoyang City, among other attractions. Meanwhile, cultural display points could be set up along the race route to showcase Luoyang’s traditional handicrafts and folk performances, enabling runners and spectators to immerse themselves in Luoyang’s cultural charm up close during their downtime. Additionally, a “Cultural Exploration Orienteering Race” could be introduced, using Luoyang’s historical and cultural sites as checkpoints. Participants would earn points and complete the race by fulfilling various culture-related tasks, such as answering questions about cultural relics and experiencing traditional crafts.

2.3.2. Deepening the integrated development of events and tourism

Strengthening the deep integration of events and tourism in terms of resources, industries, and markets is a crucial approach to enhancing the competitiveness of Luoyang’s event tourism. In terms of resource integration and collaboration, sports and tourism departments should establish close cooperation mechanisms, jointly formulate event tourism development plans, and integrate sports event resources with tourism resources to achieve resource sharing and complementary advantages.

When organizing sports events, full consideration should be given to the utilization of tourism resources, combining event venues with tourist attractions to create event tourism routes.

For instance, when hosting the “Luoyang Table Tennis King” competition, the venue could be set near the Longmen Grottoes, allowing participants and spectators to conveniently visit the grottoes after the event. Simultaneously, when developing tourism products, the tourism department should fully incorporate elements of sports events, launching event-related tourism packages such as “event viewing + scenic spot tours” and “event participation + tourism vacations” to meet the diverse needs of tourists. Furthermore, resources from event organizers, tourism enterprises, scenic spots, and other parties could be integrated to jointly plan and promote event tourism activities, forming a synergistic effort to enhance the influence of event tourism.

2.3.3. Improving the infrastructure and service system

Strengthening the construction of transportation facilities, improving the quality of accommodation and catering services, and optimizing event and tourism services are the foundations for enhancing the quality of event tourism in Luoyang. The improvement of infrastructure is crucial for the development of event tourism.

During the event period, in order to alleviate urban traffic congestion, Luoyang should strengthen traffic planning and management. Upgrade and renovate the main roads leading to event venues and tourist attractions, increase the number of lanes, improve road conditions, and reduce traffic congestion. Increase public transportation routes, especially those leading to event venues and tourist attractions, extend operating hours, and increase the frequency of departures to facilitate tourist travel. Additionally, Luoyang can increase investment in accommodation facilities to expand the supply of lodging, particularly mid-to-high-end accommodation resources. They can also encourage social capital to invest in the construction of star-rated hotels, boutique homestays, etc., to enhance the quality and service standards of accommodation facilities. Meanwhile, Luoyang should strengthen the management and supervision of accommodation facilities, standardize the order of the accommodation market,

and ensure the safety and hygiene of accommodation facilities. In terms of catering, explore and inherit Luoyang's food culture, and create catering brands with local characteristics by encourage catering enterprises to innovate dishes and introduce more delicacies that cater to tourists' tastes.

2.3.4. Strengthen brand building and marketing promotion

Luoyang should deeply explore its own historical and cultural heritage, natural scenery, and sports event characteristics to clarify the positioning of its event tourism brand. Combining Luoyang's city image as the "Millennium Ancient Capital, City of Peonies," position the event tourism brand as an "event tourism destination where historical culture and sports passion coexist," highlighting the unique charm of Luoyang's event tourism. Around this positioning, create an event tourism brand with differentiated competitive advantages by integrating historical and cultural elements into sports events.

In terms of traditional media, strengthen cooperation with newspapers, television, radio, and other media to place advertisements for the event tourism brand, report on event activities and tourism resources, and increase brand exposure. Advertisements for Luoyang's event tourism can be placed on media outlets such as China Central Television and Henan Television to showcase Luoyang's historical and cultural heritage, natural scenery, and exciting moments from sports events. In terms of new media, fully utilize social media, short video platforms, etc., for brand dissemination. Establish official Weibo, WeChat public accounts, Douyin accounts, etc., for Luoyang's event tourism, and regularly release event information, travel guides, exciting videos, and other content to attract user attention and interaction.

3. Conclusion

In summary, Luoyang's event tourism has achieved remarkable results under the dual support of resource endowment and policy-driven initiatives. However, deep-rooted structural contradictions still need to be resolved through systematic strategies. Therefore, this paper proposes the following paths to promote balanced development:

- (1) By strengthening the deep integration of events and tourism in terms of resources, industries, and markets, we aim to improve supporting services, coordinate promotional efforts, deepen the integrated development of events and tourism, and enhance the integration of sports and tourism;
- (2) We seek to improve transportation infrastructure, elevate the quality of accommodation and catering services, and optimize event and tourism services to provide visitors with a better travel experience;
- (3) By clarifying brand positioning, formulating communication strategies, and conducting marketing activities, we aim to strengthen brand building and marketing promotion, enhancing the visibility and influence of Luoyang's event tourism.

In the future, research on the development of Luoyang's event tourism can be expanded along three major dimensions:

- (1) Construction of a quantitative evaluation system through the establishment of a Sports-Tourism Integration Index (STII) to accurately measure the collaborative efficiency of sports and tourism through big data analysis of tourist sentiment.
- (2) Pathways for county-level collaborative development by exploring the model of "event attraction in core scenic areas, diversion and accommodation in surrounding counties" (e.g., outdoor events at Baiyun

Mountain driving tourism to health and wellness destinations in Ruyang County).

- (3) Dual-track research on technology and ethics by paying attention to the substitution effect of VR event experiences on physical tourism and establish ethical guidelines for digital participation in cultural heritage.

By applying these technologies in Luoyang's event tourism, we aim to explore how to leverage new technologies to enhance visitor experiences and innovate event tourism products and service models, thereby promoting high-quality and sustainable development of Luoyang's event tourism.

Disclosure statement

The authors declare no conflict of interest.

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