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A Review and Breakthrough of the Development of Sports Tourism in Xinjiang under the Belt and Road Initiative

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Abstract:

With the growing pursuit of a healthy lifestyle, sports tourism has become an integral part of people's lives. However, sports tourism in China currently accounts for only 5% of the tourism market, while in developed countries, the proportion reaches 25%. This indicates that there is still significant room for growth in China's sports tourism market. The Belt and Road Initiative proposed by China has had a significant impact on politics, economics, culture, tourism, and other areas. As the gateway to Belt and Road construction, Xinjiang will experience a tremendous boost in its sports tourism industry due to this initiative. This paper employs methods such as literature review, statistical analysis, and SWOT analysis to examine the development of sports tourism in Xinjiang over the past decade under the Belt and Road Initiative, exploring new driving forces for the high-quality development of Xinjiang's sports tourism industry. Based on this, it proposes approaches such as driving new productive forces, multi-dimensional empowerment, adhering to the right principles while innovating, improving

quality and efficiency, and promoting integrated development, in order to break through the development bottleneck of sports tourism in Xinjiang.

Keywords: Belt and Road Initiative; Sports Tourism; SWOT Analysis; High-Quality Development; Breakthrough

Purpose: This paper mainly analyzes the impact of the Belt and Road Initiative on Xinjiang's tourism. Based on this, it examines the strengths, weaknesses, opportunities, and threats of Xinjiang's sports tourism development, and establishes a SWOT matrix. The aim is to clarify the internal and external environments of Xinjiang's sports tourism development and address the challenges in its development.

Method: This study uses methods such as literature review, SWOT analysis, and statistical analysis. It reviews literature and textual materials to understand the development overview of sports tourism in Xinjiang; applies SWOT analysis to clarify the strengths and weaknesses, opportunities and threats of Xinjiang's sports tourism development, and establishes an analysis matrix; uses statistical methods to create trend graphs of the total number of tourists and total revenue in Xinjiang, in order to grasp the development trends of sports tourism in Xinjiang.

1. Introduction

In 2013, China proposed the Belt and Road Initiative. On March 28, 2015, the National Development and Reform Commission, the Ministry of Foreign Affairs, and the Ministry of Commerce jointly released the "Vision and Actions on Promoting the Construction of the Silk Road Economic Belt and the 21st Century Maritime Silk Road." The document emphasized leveraging Xinjiang's unique geographical advantages and its role as a key gateway for opening up to the West, strengthening exchanges and cooperation with Central Asia, South Asia, and West Asia, and developing Xinjiang into an important transportation hub, trade logistics, and cultural and educational center along the Silk Road Economic Belt, positioning it as the core area of the initiative [1]. The Belt and Road Initiative has presented significant opportunities and challenges for Xinjiang's political, economic, cultural, and tourism development [2]. This paper explores the development of sports tourism in Xinjiang under the context of the Belt and Road Initiative and proposes pathways for the development of sports tourism in Xinjiang.

2 Overview of the Development of Xinjiang's Tourism Industry over the Past Decade under the Belt and Road Initiative.

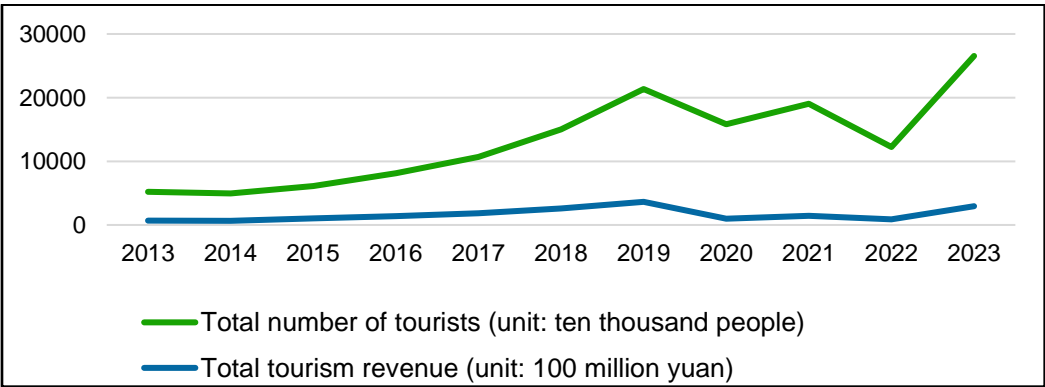


Figure1. Statistics on Total Tourism Numbers and Total Tourism Revenue of Xinjiang, 2013-2023

Figure 1 shows that after the Belt and Road Initiative was proposed in 2013, there was no significant change in the total number of tourists to Xinjiang. However, starting in 2014, the total number of tourists and tourism revenue in Xinjiang grew rapidly, showing a year-on-year increasing trend. After reaching its peak in 2019, both began to decline. From 2019 to 2022, the total number of tourists and tourism revenue in Xinjiang showed a fluctuating downward trend, primarily due to the COVID-19 pandemic [3, 4]. The travel restrictions caused by the pandemic affected the mobility and economic benefits of the tourism market. As a result, both the total number of tourists and tourism revenue in Xinjiang declined to varying degrees between 2019 and 2022. However, from the perspective of the past decade of Xinjiang's tourism development, both total tourism numbers and revenue have shown an overall upward trend with fluctuations.

3 Result

3.1 Advantages of Sports Tourism Development in Xinjiang

3.1.1 Environmental Advantages

Xinjiang's natural environmental advantages include aspects such as geographical location, terrain and topography, climate, and water resources. Located in the northwest of China, Xinjiang borders Gansu, Qinghai, and Tibet within China, and shares borders with Mongolia, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, Afghanistan, Pakistan, and India, making it the largest provincial-level administrative region in China. Xinjiang's terrain and topography are diverse and complex, with the Tianshan Mountains dividing the region into Northern and Southern Xinjiang[5]. Xinjiang's unique geographic conditions provide the necessary conditions for hosting sports events. Xinjiang has a typical temperate continental arid climate, with precipitation concentrated in the mountainous areas, and little rainfall in the plains. Water resources are unevenly distributed both spatially and temporally, with more rainfall in the west, less in the east, more in the north, and less in the south. The differences in rainfall create significant natural environmental contrasts between Northern and Southern Xinjiang. Northern Xinjiang, with its snow-capped mountains, grasslands, forests, and lakes, is more suitable for sports tourism based on natural landscapes. In contrast, Southern Xinjiang, home to multiple ethnic groups such as the Uyghur, Tajik, Kirghiz, and Mongol, is more suitable for sports tourism based on cultural and human environments. Xinjiang's unique natural and cultural resources provide favorable conditions for the development of sports tourism activities.

3.1.2 Advantage of Tourism Resources

Xinjiang's unique geographical features, magnificent landscapes, and captivating folk culture attract both domestic and international tourists [6]. Its diverse geography offers a variety of landscapes, including snow-capped mountains, canyons, grasslands, deserts, Gobi, and forests. The diversity of its terrain makes Xinjiang's tourism resources extremely rich, and it has long been a paradise for outdoor sports. Xinjiang is a multi-ethnic region, and various ethnic groups have created traditional sports activities rich in ethnic characteristics and charm, such as horse racing, goat grabbing, "girl chasing," archery, wrestling, and swinging, among others[7, 8]. These diverse traditional sports activities are widely distributed throughout Xinjiang, serving as a unique and attractive cultural resource for sports tourism. Xinjiang also boasts abundant natural sports tourism resources, such as the Nalati Grassland, Bayinbuluk Grassland, Karajun Grassland, and Tangbula Grassland. These grassland resources provide the essential conditions for sports tourism activities and have led to the development of two premium sports tourism destinations in China: Nalati and Karajun. Additionally, Xinjiang has rich ice and snow resources, such as the Altai Mountains, which is considered the birthplace of skiing. The region, known as "China's Snow City," utilizes its ice and snow resources to offer winter tourism products, including skiing, snow play, and snow appreciation.

Desert resources are another characteristic of Xinjiang, including the Taklamakan Desert, the Gurbantunggut Desert, and the Kumtag Desert. These desert resources provide opportunities for activities such as hiking, sand skiing, off-roading, and camping. In summary, Xinjiang's sports tourism resources are extremely rich and advantageous, offering great potential for the development of sports tourism, with promising prospects for growth.

3.1.3 Market Prospects Advantage

With the continued healthy development of the economy and the upgrading of consumption structures, the leisure industry, particularly the experience economy, has become the future direction of development. From the perspective of tourism industry development, the Chinese tourism market is transitioning from sightseeing tours to experiential tours, with the proportion of experiential tours steadily increasing. From the perspective of sports development, sports tourism is an important component of the sports industry, and the focus on sports tourism by both sports and tourism sectors is inevitable. Currently, sports tourism accounts for about 5% of the Chinese tourism market, while the global average is 15%, with developed countries reaching as high as 25% [9]. This indicates that there is still significant room for growth in China's sports tourism market. In recent years, China's sports tourism industry has developed rapidly, benefiting on one hand from the improvement of residents' income levels and the upgrading of tourism consumption. Experiential sports tourism activities, such as skiing, ice skating, outdoor sports, and mountaineering, have gained increasing popularity. On the other hand, driven by demand, a range of tourism projects with sports as the core and tourism as the vehicle have gained widespread attention. These projects not only promote the shift of tourism from traditional sightseeing to experiential activities, but also become new highlights in the tourism market. Under the Belt and Road Initiative, the total number of tourists and tourism revenue in Xinjiang showed a fluctuating growth trend from 2013 to 2023. With people's increasing pursuit of a healthy lifestyle and growing desire for travel, Xinjiang's sports tourism market is bound to experience explosive growth. Additionally, Xinjiang's sports tourism brand image is continuously strengthening, with more and more premium sports tourism destinations, routes, and events, which further enhance its influence and competitiveness. The market prospects are boundless.

3.2 Disadvantages of Sports Tourism Development in Xinjiang

3.2.1 Seasonal Disadvantages

Xinjiang has distinct seasons, with significant seasonal variations. Tourism activities are greatly affected by the seasons, leading to a clear distinction between the off-season and peak season. The second and third quarters are the peak seasons for tourism in Xinjiang, particularly from July to September, which is considered the golden period for tourism. Due to its location in the northwest of China and its higher latitude, Xinjiang experiences long winters, which are not conducive to tourism activities. The main factors that affect winter tourism in Xinjiang include low temperatures, heavy snowfall, road closures, and the temporary closure of scenic areas. One of the reasons for the limited winter tourism in Xinjiang is the low temperatures. The Tianshan Mountains not only divide Xinjiang into northern and southern parts but also block the southward invasion of cold air in winter, resulting in lower temperatures in the north and relatively higher temperatures in the south. While southern Xinjiang has relatively milder winter temperatures, most of the tourism resources, especially those for sports tourism, are concentrated in northern Xinjiang [10]. Therefore, the first and fourth quarters are considered off-peak seasons for tourism in Xinjiang. Heavy snowfall is another factor limiting the development of winter tourism. Although snow and ice are high-quality resources for sports tourism in Xinjiang, the frequent heavy snowfall in winter often leads to road closures, preventing access to scenic areas. In addition, the development of snow and ice tourism resources has been relatively slow, resulting in fewer tourism activities during the winter season.

As scenic areas close their roads due to low visitor numbers and a lack of activity, most tourism spots in Xinjiang choose to close for maintenance in the winter, and sports tourism also enters its off-season. Thus, the seasonal differences in Xinjiang's natural environment limit the development of sports tourism in the region.

3.2.2 Transportation and Communication Disadvantages

After years of development, transportation and communication in Xinjiang's urban areas have become relatively well-developed. However, due to the scattered distribution of tourist attractions, many of which are located in remote areas, transportation and communication remain factors that need to be addressed for tourism in Xinjiang [11]. Xinjiang has the most airports of any province in China, and flying is the most convenient way to travel around the region. However, the high cost of airfare is not affordable for everyone, and flying prevents tourists from enjoying the scenic views along the way, which significantly diminishes the travel experience. Moreover, most airports are located in suburban areas, which means it takes a long time to travel to and from the city center, and the timing is difficult to manage. As a result, the number of tourists choosing air travel to Xinjiang is limited. By the end of 2022, Xinjiang's railway network had reached all cities and districts, covering over 80% of county-level administrative areas. Traveling by train is a popular choice for many tourists due to its low cost, safety, and comfort. However, during peak tourist seasons, train tickets are in high demand and often require advance reservations. Without booking in advance, there is a risk of not being able to secure tickets. Xinjiang's road network is extensive and well-connected, but the numerous winding roads and steep climbs present significant challenges. The perception of risk in sports tourism becomes a crucial factor to consider. In recent years, self-driving has become a new way for tourists to visit Xinjiang, but it is expensive and requires sufficient travel time. During the 13th Five-Year Plan period, Xinjiang's information and communication industry generally maintained stable and rapid development, with significant progress in broadband network speed increases and cost reductions. However, most of Xinjiang's sports tourism attractions are located in remote areas, making it difficult to ensure reliable communication. Therefore, transportation and communication are vital to Xinjiang's tourism industry and remain major factors hindering the development of sports tourism in the region.

3.2.3 Disadvantages of Supporting Services

Sports tourism is not simply sightseeing; it requires tourists to participate actively and experience the fun of sports tourism firsthand, thereby realizing its full value. However, Xinjiang's sports tourism infrastructure is underdeveloped, and services such as accommodation, transportation, dining, and information systems at tourist attractions are insufficient to meet the needs of modern urban development [12]. Xinjiang's sports tourism experiences seasonal differences. Therefore, supporting services must be flexible and adaptable. The second and third quarters are peak seasons for sports tourism in Xinjiang, during which there are more tourists and a high demand for accommodation. Whether the demand for lodging can be met during peak seasons has become an important indicator of Xinjiang's sports tourism reception capacity. However, in practice, Xinjiang still faces challenges such as difficulty in securing accommodation and high lodging prices during peak seasons. The "accessibility" of sports tourism destinations includes both the transportation conditions between tourists and the destination, as well as the transport options within the tourist attractions. Xinjiang's sports tourism sites generally suffer from poor accessibility, which hinders the development of sports tourism in the region [13]. Xinjiang's cuisine is diverse and renowned, but the differences in dietary habits among tourists from different regions should be a key consideration for sports tourism activities. While Xinjiang began developing tourism activities relatively early, the development of sports tourism activities is relatively late. As a result, compared to other cities, there is a gap in the information infrastructure of Xinjiang's sports tourism attractions.

3.2.4 Disadvantages of Talent Shortage

Sports tourism in China began in the 1990s, which is relatively late compared to developed countries, but it has developed rapidly. With the fast growth of the sports tourism industry, the contradiction between the supply and demand of sports tourism talent has become increasingly prominent [14]. As one of the major markets for domestic and international sports tourism, Xinjiang's sports tourism economy is growing rapidly, while the talent shortage issue has gradually become more obvious. There are several reasons for the shortage of tourism talent in Xinjiang. The main reasons include the supply-demand mismatch of sports tourism talent in China, the diverse, complex, and integrative knowledge and skills required for sports tourism talent, and the cyclical nature of talent training. The supply-demand mismatch of sports tourism talent in China is mainly reflected in the large gap in talent availability. The growth rate of the sports tourism market far outpaces the slow supply of talent, and it cannot meet the growing demands of the sports tourism industry, making it one of the key factors affecting the development of sports tourism in Xinjiang. The diverse, complex, and integrative knowledge and skills required for sports tourism talent are evident in the variety of sports tourism projects, the complexity of mastering skills for each project, and the integration of sports and tourism. For example, the cycling race around Sayram Lake and the Taklamakan Desert Rally are sports tourism activities that not only require professional sports teams to organize but also need to integrate sports activities with tourism in a reasonable way to demonstrate the social, cultural, and economic value of sports tourism. The cyclical nature of sports tourism talent training is mainly reflected in the small number of universities offering sports tourism programs in China. According to China Education Online, as of June 2024, only nine universities offer undergraduate programs in sports tourism [15]. Combined with the cyclical nature of talent training, this results in a significant talent shortage in the sports tourism industry.

3.3 Opportunities for the Development of Sports Tourism in Xinjiang

3.3.1 Opportunities from the Belt and Road Initiative

The Belt and Road Initiative has broken down barriers between countries, enhancing communication and interaction among nations. The initiative has made cooperation between countries a reality. As a core region of the Silk Road Economic Belt, Xinjiang plays a crucial role in linking domestic and international markets. The BRI emphasizes the active promotion of sports exchanges and supports the hosting of major international sports events by countries along the route. This not only provides opportunities for sports exchanges and cooperation among these countries, but also encourages collaboration in the sports industry and the development of sports tourism. For example, Xinjiang can cooperate with countries like Kazakhstan and Kyrgyzstan to develop cross-border activities such as skiing, cycling, and hiking. The BRI has enabled Xinjiang to take the lead in the development of cross-border sports tourism routes, giving it an edge in exploring international sports tourism markets and creating international sports tourism brands. Additionally, the BRI strengthens Xinjiang's ties with other inland cities in China. Xinjiang can collaborate with other cities to jointly develop sports tourism and attract more tourists to experience it. For example, Xinjiang and Jilin have signed a strategic cooperation framework agreement to develop a high-quality snow economy in the China (Changbai Mountains - Altai Mountains) region [16]. The Belt and Road Initiative has brought significant opportunities for Xinjiang's opening up to the outside world, making Xinjiang's position in the country's western opening strategy more prominent. In this open framework, Xinjiang's sports tourism industry now has a broader market and greater development space.

3.3.2 Opportunities from the Transformation of the Tourism Industry

As people's living standards improve, traditional sightseeing tourism can no longer meet tourists' expectations. The pursuit of a healthy lifestyle has driven the transformation of the

tourism industry toward leisure and experiential travel. Sports tourism, wellness tourism, and educational travel have become increasingly popular, with sports tourism being one of the mainstream development directions. Both national and local governments support the development of new forms of sports tourism, such as the establishment of premium sports tourism destinations, routes, and events, as well as the recognition of national sports tourism demonstration bases. These initiatives not only provide direction for the development of sports tourism but also attract significant amounts of social capital into the development and construction of sports tourism, accelerating the growth of the industry [17]. Data shows that the global sports tourism market reached a value of \$564.7 billion in 2023, and it is projected that the market will grow at an average annual rate of 17.5% from 2023 to 2030, making it one of the fastest-growing sectors in the tourism industry. This indicates the vast potential of the international sports tourism market [18]. Sports tourism is increasingly intertwined with the cultural industry, with many regions combining sports tourism activities with local cultural traditions to create unique sports tourism products. Ethnic regions host traditional sports events, such as the Naadam Festival in Mongolia and the Water-Splashing Festival of the Dai people. These events not only showcase local ethnic traditions but also attract large numbers of tourists to experience the local customs. The integration of "sports, culture, and tourism" will further unlock the potential of sports tourism and provide new momentum for its development. As tourists' needs for travel change, Xinjiang's diverse tourism resources are transforming into sports tourism resources, laying the foundation for the development of sports tourism in Xinjiang.

3.3.3 Opportunities from Sports Tourism Policies

On October 28, 2016, the General Office of the State Council issued the "Guiding Opinions on Accelerating the Development of the Fitness and Leisure Industry" (Guo Ban Fa [2016] No. 77), which called for vigorously developing sports tourism, drafting a sports tourism development plan, implementing a sports tourism demonstration project, and creating a national sports tourism project directory. It also supported and guided tourism destinations with conditions to expand sports tourism offerings and leverage major sports tourism projects to drive the development of sports tourism demonstration bases [19]. On December 22, 2016, the National Tourism Administration and the General Administration of Sport of China jointly issued the "Guiding Opinions on Vigorously Developing Sports Tourism" (Lv Fa [2016] No. 172), which set targets for sports tourism development, aiming to reach 1 billion participants and 1 trillion yuan in sports tourism consumption by 2020 [20]. On March 22, 2018, the General Office of the State Council issued the "Guiding Opinions on Promoting the Development of All-for-One Tourism" (Guo Ban Fa [2018] No. 15), which called for promoting winter sports, mountain outdoor activities, water sports, motorsports, air sports, and wellness sports tourism, as well as transforming large city malls, tourism sites with suitable conditions, idle spaces in development zones, sports venues, sports leisure towns, and rural beauty areas into integrated sports tourism complexes [21]. On September 2, 2019, the General Office of the State Council issued the "Notice on the Issuance of the National Sports Power Construction Outline" (Guo Ban Fa [2019] No. 40), which called for expanding new consumption spaces in sports fitness, sports viewing, sports training, and sports tourism, and for deepening cooperation on sports tourism with countries along the Belt and Road Initiative to create high-quality sports tourism events and routes [22]. On August 23, 2019, the General Office of the State Council issued the "Opinions on Further Stimulating the Potential of Cultural and Tourism Consumption" (Guo Ban Fa [2019] No. 41), which focused on developing products like business exhibition tourism, self-driving tourism, sports tourism, forest tourism, and wellness tourism [23]. On January 20, 2022, the State Council issued the "Notice on Issuing the 14th Five-Year Plan for Tourism Development" (Guo Fa [2021] No. 32), which called for implementing

sports tourism demonstration projects, creating a series of influential sports tourism routes, events, and demonstration bases, and innovating the China Sports Tourism Expo[24]. On September 29, 2023, the General Office of the State Council issued the "Measures to Release Tourism Consumption Potential and Promote the High-Quality Development of Tourism" (Guo Ban Fa [2023] No. 36), which proposed the implementation of sports tourism demonstration projects, nurturing the "Traveling with Events" brand, and creating a series of influential sports tourism routes, events, and bases[25]. These policy documents provide opportunities and guidance for the development of sports tourism in Xinjiang.

3.4 Threats to the Development of Sports Tourism in Xinjiang

3.4.1 Market Competition

Market competition in sports tourism refers to the economic activity in which tourism product operators compete with each other to attract tourists, seeking recognition from consumers and society in order to realize the economic value of tourism products. The competition in the sports tourism market mainly manifests in the competition over products and services[26], marketing channels[27], sports tourism resources, and sports tourism talent[28]. The competition over products and services is primarily reflected in resource differentiation and quality assurance. In the sports tourism market, operators strive to enhance their competitiveness by creating differentiated sports tourism products, such as extreme sports, rafting, hot air balloons, paragliding, and more. To earn a good reputation, operators also aim to provide high-quality services, including professional coaches, excellent safety personnel, and well-equipped facilities, to ensure a satisfying experience for tourists. The competition over marketing channels primarily involves both online and offline marketing. In order to inform tourists about sports tourism resources, operators use online social media, tourism platforms, and communication networks to convey information. To attract tourists and gain attention, operators also use offline experiences, tourism exhibitions, and brand building to engage potential visitors. The competition for sports tourism resources mainly involves the competition for sports and tourism resources. To attract a large number of tourists, the rights to host sports events, the use of famous venues, and the participation of sports celebrities become focal points of competition in sports tourism. The competition for talent is primarily about recruiting versatile professionals who are skilled in both sports techniques and tourism knowledge, such as sports tourism managers, marketers, coaches, and tour guides. Although sports tourism in Xinjiang has its own advantages in the market competition, it must plan ahead to mitigate the potential threats posed by growing competition and the increasingly intense competitive environment.

3.4.2 Ecological Damage Issues

In recent years, extreme weather events have become more frequent, directly linked to environmental degradation, air pollution, climate change, and changes in biodiversity. Ecological damage primarily manifests in land degradation, desertification, deforestation, and shrinking wetlands, which limit the availability of spaces for sports tourism activities. Locations suitable for hiking, mountaineering, cycling, and water sports may no longer be viable due to ecological deterioration, affecting the development and experience of sports tourism. Air pollution is primarily reflected in the emission of waste gases, sandstorms, and chemical smog. Air pollution diminishes tourists' enthusiasm, as travelers who initially planned to enjoy a healthy and recreational sports tourism experience may be deterred by concerns about air quality and health risks. This results in lower satisfaction and a significant reduction in the likelihood of repeat visits. Climate change is primarily reflected in extreme weather events such as heavy rainfall, snowstorms, and high temperatures, which disrupt the normal conduct of sports tourism activities. Seasonal disruptions, such as insufficient snowfall or higher-than-usual temperatures in winter, can negatively impact winter sports tourism[29]. Changes in biodiversity are mainly reflected in habitat destruction, overhunting, and the invasion of foreign

species, which lead to the accelerated extinction of species and disrupt the stability and integrity of ecosystems. These changes, in turn, hinder the sustainable and healthy development of sports tourism. Ecological degradation can also lead to natural disasters, such as soil erosion, landslides, and floods, which pose serious threats to tourists' safety and obstruct the implementation of sports tourism activities. Xinjiang's ecological environment is fragile and vulnerable to external influences[30], and the development of sports tourism must prioritize a balance between development and conservation, minimizing ecological damage caused by tourism activities.

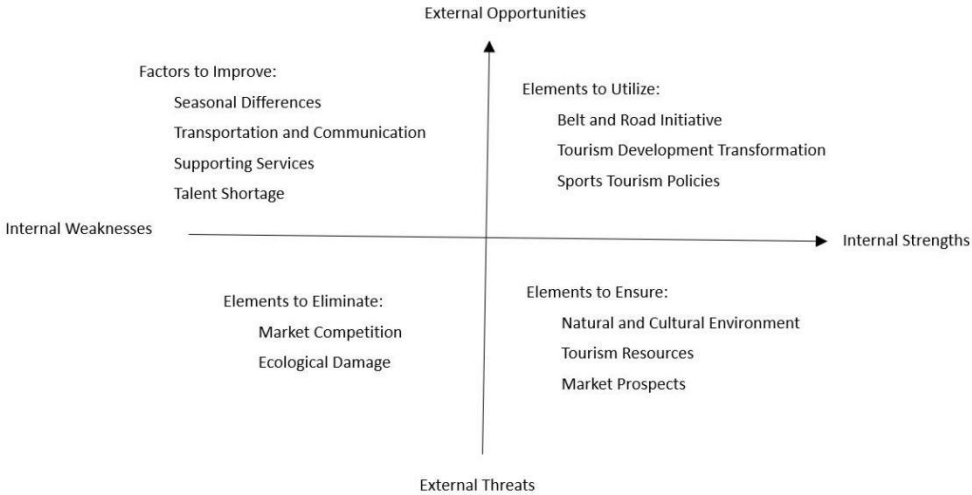


Figure 2. SWOT Analysis Matrix of Xinjiang Sports Tourism Development under the 'Belt and Road' Initiative

4. Breakthroughs in the Development of Sports Tourism in Xinjiang

4.1 New Productive Forces Driving High-Quality Development of Sports Tourism

With advancements in technology and societal changes, new media, new types of labor objects, and innovative talent have become key factors driving the high-quality development of sports tourism in Xinjiang. New Media refers to the use of digital and network technologies to provide information and services to users. With the widespread use of smartphones and the development of mobile internet, mobile application-based media platforms, such as Douyin (TikTok), Weibo, WeChat, and Tencent Video, have significantly improved the efficiency of spreading sports tourism information. The widespread use of new media has made sports tourism information and services in Xinjiang more accessible, accelerating the development of the local tourism industry.

New Types of Labor Objects are new material or immaterial resources formed under the influence of technological and industrial transformations. New labor objects, such as big data, information technology, and intelligent systems, have been widely applied in sports tourism. Intelligent early warning systems, itinerary planning systems, smart navigation, and big data marketing tools have made sports tourism services more intelligent and personalized, providing real-time and accurate travel information and services to tourists. Xinjiang should fully utilize these new types of labor objects to promote the high-quality development of its sports tourism industry. Innovative Talent is the core driving force for the development of sports tourism. Xinjiang needs to strengthen the cultivation and introduction of innovative talent for sports tourism, support industry-academia cooperation, and promote innovation and development in the tourism sector. This will provide talent support for the sustainable development of Xinjiang's sports tourism industry. In conclusion, through the widespread application of new media, the intelligent advancement of new types of labor objects, and the cultivation and introduction of innovative talent, Xinjiang's sports tourism industry is poised for high-quality growth.

4.2 Multi-Dimensional Empowerment for High-Quality Development of Sports Tourism

Firstly, ecological empowerment provides a solid foundation for sports tourism. Xinjiang is endowed with abundant natural resources, such as mountains, grasslands, and lakes, which enable a variety of ecological sports tourism activities, such as hiking, mountain biking, trekking, and orienteering. Secondly, cultural empowerment enhances the high-quality development of sports tourism by injecting cultural connotations into it, making it more than just physical activities and sightseeing. Xinjiang's distinctive folk culture, cuju culture (ancient Chinese football), and horse culture, among others, can be integrated into event planning, scenic area upgrades, and sports culture product development, enriching the cultural depth of tourism experiences. By strengthening cooperation and collaboration between cultural, tourism, and sports departments, and promoting cross-sector cooperation and resource integration, the influence and attractiveness of sports tourism projects can be significantly increased. Lastly, talent empowerment is crucial for the high-quality development of sports tourism. Professional talents not only bring innovative ideas, such as immersive virtual reality experiences, but also provide high-quality services in event organization, visitor guidance, and other aspects. The types of professionals needed for sports tourism include sports professionals, tourism professionals, and interdisciplinary talents. By attracting talent, strengthening industry exchanges and cooperation, and improving the technical skills of existing staff, Xinjiang can address the shortage of sports tourism talents, thereby driving the high-quality development of the sports tourism industry.

In conclusion, ecological, cultural, and talent empowerment are the three key factors driving the high-quality development of sports tourism in Xinjiang. Through their integration and synergistic effects, Xinjiang's sports tourism will have broader prospects for growth.

4.3 Persisting in Upholding Innovation, Improving Quality and Efficiency, and Promoting Integrated Development.

Firstly, upholding innovation emphasizes the development of innovation based on the inheritance of traditional culture and practical experience. Xinjiang possesses abundant natural resources and historical culture, and upholding innovation requires leveraging these resources while enhancing the tourism experience through innovative tourism forms and management methods. For example, through digital management, providing precise tourism products and optimizing resource allocation can offer visitors a more comfortable and satisfying experience. Secondly, improving quality and efficiency focuses on reforming and enhancing the quality and efficiency of tourism supply, particularly in supply-side structural reform, which involves reducing ineffective and low-end supply while enhancing the adaptability of high-quality supply to meet changing demands. Xinjiang should develop tourism projects with local cultural characteristics, such as "sports tourism," "folk tourism," and "ecotourism," avoiding homogenized sightseeing tours. Xinjiang's multicultural heritage and unique ethnic sports activities can attract more tourists, enhancing the diversity and quality of the tourism experience, and promoting quality and efficiency improvements in the tourism industry. Finally, integrated development emphasizes the deep integration of different industries or sectors to form new development models. Xinjiang's tourism can combine "sports-tourism integration," "culture-tourism integration," and "sports-culture-tourism integration," promoting the comprehensive utilization of tourism resources. Xinjiang's rich natural landscapes and ethnic cultures provide ideal venues for sports events, such as desert rallies, cycling races, marathons, and other sports activities. In conclusion, through upholding innovation, improving quality and efficiency, and promoting integrated development, Xinjiang's sports tourism will achieve a win-win situation in both economic and social benefits.

5 Discussion

Xinjiang, as an important development region for sports tourism in China, has unique advantages due to its distinct geographical environment, abundant natural resources, and diverse ethnic cultures. Firstly, the geographical location and terrain of Xinjiang provide a variety of options for sports tourism activities. Whether it's desert off-roading, grassland cycling, or skiing, suitable venues can be found[31,32]. Secondly, the rich folk culture and traditional sports activities add significant cultural depth to Xinjiang's sports tourism[33]. However, the development of sports tourism in Xinjiang also faces some challenges, particularly seasonal variations[34], inadequate transportation and communication infrastructure, delayed resource development, and a shortage of talent[35]. In response to these challenges, this paper proposes strategies such as driving new productive forces, providing multi-dimensional empowerment, upholding integrity while innovating, enhancing quality and efficiency, and promoting integrated development to facilitate the high-quality development of Xinjiang's sports tourism industry.

6 Conclusion

The Belt and Road Initiative has created unprecedented opportunities for exchange and cooperation in various fields such as economics, society, and culture among countries along the route. Cultural, educational, and tourism exchanges between the peoples of these countries have become increasingly frequent, enhancing mutual understanding and friendship. As the core area of the Silk Road Economic Belt, Xinjiang plays a crucial role in connecting domestic and international markets. Xinjiang's tourism resources have inherent advantages, and under the Belt and Road Initiative, the tourism market is facing significant opportunities for development. With the shift from sightseeing to experience-based tourism, sports tourism has gained popularity. How to leverage Xinjiang's inherent tourism resource advantages to sustain the rapid development of the tourism industry has become a key topic for governments, enterprises, and social organizations to consider. Through a SWOT analysis of the development of sports tourism in Xinjiang, this paper proposes new productive forces, multi-dimensional empowerment, upholding integrity while innovating, improving quality and efficiency, and promoting integrated development to drive the high-quality development of Xinjiang's sports tourism industry. The aim of this paper is to inspire further academic thought on the development of sports tourism in Xinjiang and to provide useful insights for the high-quality development of China's sports tourism industry.

Disclosure

Authors' contribution:

Conceptualization: Zhongchen Zhang

Methodology: Zhongchen Zhang, Xiaoling Huang

Check: Zhongchen Zhang, Xiaoling Huang

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Investigation: Zhongchen Zhang

Resources: Zhongchen Zhang

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