

Research on the Construction of Characteristic Ice and Snow Sports Culture under the 'Yantai-Weihai' Blue Economic Belt

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Abstract: This study focused on the ice and snow sports culture in the "Yantai-Weihai" region (Yantai and Weihai), aiming to explore its characteristics, current status, and development path under the background of the Blue Economic Belt. The research background stemmed from the global rise of ice and snow sports and the enormous potential demonstrated by the "Yantai-Weihai" region in the development of the ice and snow sports industry, given its unique geographical location and natural resources. The research aimed to deeply explore the characteristics of the ice and snow sports culture in the "Yantai-Weihai" region, analyze its development status, and discuss its significant role in promoting the Blue Economic Belt. The findings indicated that the "Yantai-Weihai" region possessed abundant ice and snow resources and a unique ice and snow culture, but it still faced shortcomings in industrialization and internationalization. The ice and snow sports culture in the "Yantai-Weihai" region was characterized by its unique coastal ice and snow landscapes, a solid public foundation, and a rich variety of events, gradually becoming a bright symbol of the Blue Economic Belt. In the future, strengthening cultural excavation, enhancing industrial levels, and expanding the international market would be key to the development of the "Yantai-Weihai" ice and snow sports culture.

1. Introduction

The Blue Economic Belt, as an innovative regional economic development model, was centered on leveraging abundant marine resources to promote the deep integration and coordinated development of marine and land-based industries, thereby advancing the regional economic integration process. Located in the eastern part of the Shandong Peninsula, the "Yantai-Weihai" region (Yantai and Weihai) had formed a unique economic and cultural system due to its advantageous geographical location and abundant marine resources, making it an indispensable key node in the Blue Economic Belt. The study of the construction of ice and snow sports culture under the "Yantai-Weihai" Blue Economic Belt had been of great significance. Ice and snow sports, as not only a cultural phenomenon, had enriched the cultural connotation of the region, enhanced its cultural soft power, and increased its visibility. Additionally, they had demonstrated a strong

industrial driving effect, fostering the rapid development of related industries such as tourism, sports equipment manufacturing, and the service sector, thus promoting regional economic diversification and the optimization and upgrading of the industrial structure.

Given this context, this research aimed to explore the characteristics, current construction status, existing challenges, and development strategies of ice and snow sports culture under the "Yantai-Weihai" Blue Economic Belt. The specific research content included: in-depth exploration, effective inheritance, and innovative development of ice and snow sports culture; the construction planning, operational management, and sustainability of ice and snow sports facilities; the training system, recruitment mechanisms, and incentive mechanisms for ice and snow sports professionals; and the integration paths and development models of ice and snow sports culture with industries such as tourism, culture, and education.

To comprehensively and thoroughly conduct this study, various research methods, including literature analysis, field investigations, and case studies, had been adopted. Through systematic collection and analysis of relevant literature, the study had aimed to grasp the research status and development trends of the Blue Economic Belt and ice and snow sports culture both domestically and internationally. Field investigations had been conducted to gain an in-depth understanding of the actual situation and challenges of ice and snow sports culture in the "Yantai-Weihai" region. Case studies had been used to summarize successful experiences and practices, providing insights and references for the construction and development of ice and snow sports culture in the "Yantai-Weihai" region. Ultimately, the research had aimed to form a comprehensive understanding of ice and snow sports culture under the "Yantai-Weihai" Blue Economic Belt and propose targeted and practical development strategies.

2. Literature Review and Theoretical Foundation

2.1 Review of Domestic Research

In recent years, with the rapid development of the domestic ice and snow sports industry, especially in the context of the "Yantai-Weihai" Blue Economic Belt, the construction of characteristic ice and snow sports culture had been beneficial for regional economic development and cultural heritage preservation.

The "Yantai-Weihai" Blue Economic Belt was adjacent to the ocean, had a suitable winter climate, and, due to its unique geographical environment, was conducive to the formation of ice and snow. This had provided favorable conditions for the development of the ice and snow sports industry and the inheritance of ice and snow culture [1]. Research findings indicated that by analyzing the region's natural geographical conditions, economic development level, and policy environment, scholars had explored the positioning and development direction of the ice and snow sports industry in this region [2]. Zhang Yan et al. pointed out that leveraging the marine resources and tourism advantages of the Blue Economic Belt provided an excellent foundation for the development of characteristic ice and snow sports culture [3].

Additionally, Guo Zhuoran and others conducted in-depth discussions on the connotation and extension of characteristic ice and snow sports culture. They generally believed that characteristic ice and snow sports culture not only included the inheritance of ice and snow sports techniques and the organization of sports events but also encompassed the deep integration of ice and snow sports with regional culture, folk customs, and tourism [4]. By exploring and organizing these cultural elements, scholars had sought to enrich the cultural connotation of ice and snow sports and enhance the cultural appeal of ice and snow tourism.

Furthermore, Meng Wei and others focused on the pathways and strategies for constructing ice and snow sports culture [5]. Their research proposed specific recommendations and measures from

various perspectives, such as policy guidance, financial investment, talent cultivation, and infrastructure development, aiming to provide theoretical support and practical guidance for the construction of characteristic ice and snow sports culture under the "Yantai-Weihai" Blue Economic Belt [6].

However, despite the progress made in domestic research on ice and snow sports culture construction, some issues and shortcomings remained. For instance, theoretical research on ice and snow sports culture had not yet been fully explored, and there was a lack of a systematic theoretical framework. At the same time, research at the practical level was relatively limited, with insufficient case studies and empirical research specifically addressing the region's development.

2.2 Current Status of Foreign Research

Internationally, research on the construction of ice and snow sports culture had begun earlier and had formed a relatively mature theoretical system and practical experience. In particular, in countries with well-developed ice and snow sports industries, such as Switzerland, Canada, and Norway, ice and snow sports culture had become deeply ingrained in society and represented a significant component of national culture.

Foreign research had primarily focused on the historical origins, cultural characteristics, and social functions of ice and snow sports culture. Through in-depth exploration and systematic organization of ice and snow sports culture, scholars had revealed its unique cultural connotation and value significance [7]. Additionally, international researchers had emphasized the integration of ice and snow sports culture with tourism, education, and the sports industry, exploring diverse development paths for ice and snow sports culture [8].

Moreover, foreign studies had also paid attention to the inheritance and innovation of ice and snow sports culture. By organizing various ice and snow sports cultural activities and promoting ice and snow sports cultural products, these countries had continuously advanced the transmission and development of ice and snow sports culture. At the same time, they had focused on incorporating modern technological methods, such as digital technology and virtual reality, to support the innovation of ice and snow sports culture.

3. Results and Analysis

3.1 Overview of the "Yantai-Weihai" Blue Economic Belt and Ice and Snow Sports Culture

3.1.1 Overview of the Blue Economic Belt

The "Yantai-Weihai" region, consisting of Yantai City and Weihai City, was located in the eastern part of the Shandong Peninsula and constituted an important part of the Blue Economic Belt. In recent years, the economy of the "Yantai-Weihai" region had developed rapidly, demonstrating strong growth momentum. Yantai City, as one of the major economic centers of Shandong Province, ranked among the top in GDP within the province and had established a modern industrial system dominated by sectors such as chemical new materials, automobiles, aerospace, information technology, and food production. Weihai City, on the other hand, had been renowned for its beautiful natural scenery and rich tourism resources while actively developing trade with South Korea and two-way logistics and express delivery businesses, forming a city identity led by environmental and tourism industries [9].

Under the strategic framework of the Blue Economic Belt, the "Yantai-Weihai" region, with its unique geographical location and abundant marine resources, had been positioned as a core area for marine economic development. Both cities had been committed to promoting the deep integration

of marine and land-based industries by optimizing industrial structures and upgrading industry levels to facilitate sustainable regional economic development. Particularly in fields such as marine fisheries, shipbuilding and offshore engineering equipment manufacturing, marine biopharmaceuticals, and seawater desalination, the "Yantai-Weihai" region had demonstrated strong competitiveness and significant development potential [10].

3.1.2 Characteristics of Ice and Snow Sports Culture

Although the "Yantai-Weihai" region had been primarily focused on the marine economy, its ice and snow sports culture had also possessed unique charm and a long historical heritage. Due to the relatively cold winter climate and abundant snowfall resources, the region had gradually developed a distinctive local ice and snow sports culture.

From a historical perspective, ice and snow sports in the "Yantai-Weihai" region could be traced back to ancient winter hunting, ice skating, and similar activities. Over time, these activities had evolved into modern ice and snow sports such as skiing and ice skating. In contemporary times, ice and snow sports in the "Yantai-Weihai" region had become a significant cultural event and sports industry, attracting a large number of tourists and sports enthusiasts to participate and spectate.

In terms of cultural characteristics, the ice and snow sports culture of the "Yantai-Weihai" region had integrated elements of local folklore and historical culture, forming a distinctive cultural atmosphere. For example, local ice and snow sports events often incorporated regional performances and displays, allowing spectators to experience a strong sense of regional culture while enjoying competitive sports. Additionally, the "Yantai-Weihai" region had emphasized the inheritance and innovation of ice and snow sports culture by organizing various ice and snow cultural festivals and tourism festivals, which had contributed to the popularization and development of ice and snow sports culture.

Regarding its connection to the Blue Economic Belt, the ice and snow sports culture of the "Yantai-Weihai" region had been regarded as a bright highlight within the Blue Economic Belt. The development of the ice and snow sports industry had not only enriched the cultural essence of the Blue Economic Belt and enhanced regional visibility but had also stimulated the growth of related industries, promoting economic diversification. For example, industries such as ice and snow tourism and the manufacturing of ice and snow sports equipment could complement marine tourism and marine fisheries within the Blue Economic Belt, jointly driving the prosperity of the regional economy.

3.2 The Current Status of Ice and Snow Sports Culture Construction under the "Yantai-Weihai" Blue Economic Belt

3.2.1 Characteristic Projects and Activities

Under the "Yantai-Weihai" Blue Economic Belt, ice and snow sports culture had flourished, giving rise to a series of unique ice and snow sports projects and activities.

Yantai Region: Yantai had regularly hosted the Winter Ice and Snow Carnival, featuring a diverse range of activities such as ice and snow sports experiences, cultural exhibitions, and themed performances. These events had attracted numerous residents and tourists, providing a comprehensive ice and snow entertainment experience. Additionally, Yantai, with its high-quality ski resorts such as Nanshan International Ski Resort, had not only met the daily skiing needs of its residents but had also successfully hosted national youth ice hockey invitationals and the Shandong Provincial Short Track Speed Skating Championship. These efforts had significantly enhanced the visibility and influence of Yantai's ice and snow sports. Furthermore, Yantai had actively promoted

ice and snow education in schools, with multiple primary and secondary schools establishing ice and snow sports teams and offering related courses. These initiatives had effectively stimulated students' interest and enthusiasm for ice and snow sports, laying a solid foundation for its future development.

Weihai Region: Weihai had held an annual Ice and Snow Tourism Festival in winter, featuring a variety of activities, including exquisite ice and snow sculpture exhibitions, thrilling ice and snow sports experiences, and captivating ice and snow cultural performances. These events had attracted numerous tourists to visit and participate. Notably, Weihai had innovatively combined its unique hot spring resources with skiing experiences, launching the "skiing and hot spring" tourism project. This had allowed visitors to enjoy the excitement of winter sports while relaxing in the soothing warmth of hot springs. These distinctive projects and activities had significantly enriched the ice and snow sports culture of the "Yantai-Weihai" region, enhanced regional recognition and influence, and injected new vitality into the growth of the ice and snow sports industry.

3.2.2 Infrastructure and Facilities Development

The Yantai and Weihai regions had made significant progress in the construction of ice and snow sports facilities. Yantai and Weihai had well-equipped ice and snow sports facilities, including large-scale ski resorts such as Nanshan International Ski Resort and Nanlibijie Ski Resort. These resorts, featuring state-of-the-art equipment and expansive areas, had catered to skiers of all levels. Weihai had also established several ski resorts, providing convenient skiing experiences for both locals and tourists. These facilities had been strategically distributed across urban and suburban areas, making it easier for the public to access ice and snow sports. As the ice and snow sports industry had expanded, the "Yantai-Weihai" region had continuously improved its facility quality by introducing advanced snow-making equipment, enhancing ski trails, and assembling professional coaching teams to offer high-quality and specialized ice and snow sports experiences for visitors.

3.2.3 Cultural Inheritance and Innovation

In terms of cultural inheritance and innovation, the "Yantai-Weihai" region had deeply explored its ice and snow sports cultural resources. By organizing ice and snow cultural festivals and sporting events, the region had effectively preserved and promoted ice and snow sports culture while increasing public awareness and appreciation of winter sports. The region had also indicatively introduced products such as "skiing and hot spring" tourism and ice and snow-themed homestays, diversifying the content and formats of ice and snow sports tourism.

Additionally, the "Yantai-Weihai" region had integrated ice and snow sports culture with tourism and education industries. Initiatives such as introducing ice and snow sports courses, hosting winter and summer camps, developing ice and snow tourism routes, and building themed hotels had all contributed to the diversification of the regional economy.

In summary, the "Yantai-Weihai" region had achieved remarkable progress in the construction of ice and snow sports culture. With a wide range of characteristic projects and activities, continuous improvements in infrastructure, and deepening cultural inheritance and innovation, the region had injected new vitality into sustainable regional economic development.

3.3 Challenges and Issues in the Construction of Ice and Snow Sports Culture under the "Yantai-Weihai" Blue Economic Belt

3.3.1 Issues in Cultural Awareness and Promotion

Significant issues had been observed in the awareness and promotion of ice and snow sports

culture in the "Yantai-Weihai" region.

On one hand, public awareness of ice and snow sports culture had remained relatively low. Although the region had abundant ice and snow resources and a unique winter sports culture, public knowledge about these aspects had been limited, which had, to some extent, restricted the popularization and development of ice and snow sports.

On the other hand, the dissemination channels for ice and snow sports culture had been relatively narrow. The promotion of ice and snow culture had mainly relied on traditional events and competitions, lacking a diversified and multi-dimensional communication system. Modern media, such as digital and social media, had not been fully utilized in ice and snow culture promotion. This limitation had hindered the extensive societal impact of ice and snow sports culture and constrained its broader dissemination and deeper integration into society.

3.3.2 Challenges in Facility Construction and Operation

The construction and operation of ice and snow sports facilities in the "Yantai-Weihai" region had faced multiple challenges.

The high cost of building ice and snow sports facilities had been a major obstacle. Factors such as site preparation, procurement of specialized equipment, and installation of safety infrastructure had all required significant investment. Given the technical complexity and strict standards associated with ice and snow sports facilities, construction costs had been further elevated.

Additionally, the operation and maintenance of these facilities had been challenging. Due to the seasonal nature of ice and snow sports, facility usage had been highly time-sensitive, creating difficulties in off-season maintenance and upkeep. The shortage of skilled maintenance personnel, the complexity of maintenance technologies, and the high costs of repairs had all placed significant pressure on the long-term operation of ice and snow sports facilities, affecting their sustainability and continued development.

3.3.3 Difficulties in Talent Cultivation and Recruitment

The "Yantai-Weihai" region had also faced significant challenges in the cultivation and recruitment of ice and snow sports professionals.

The talent training system for ice and snow sports had remained underdeveloped, lacking systematic and professional approaches, making it difficult to meet the demands of the rapidly growing winter sports industry. Educational institutions had struggled with course design, teacher recruitment, and the development of practical training bases, limiting the overall quality and quantity of talent cultivation.

Furthermore, the recruitment of skilled ice and snow sports professionals had been challenging. Factors such as geographical location and climate constraints, combined with the general scarcity of winter sports professionals, had made it difficult for the region to attract and retain high-level ice and snow sports talents. This situation had hindered the continuous development and competitiveness of the local ice and snow sports industry.

3.3.4 Lack of Industry Integration and Innovation

The "Yantai-Weihai" region had also experienced difficulties in integrating ice and snow sports culture with related industries and fostering innovation.

The integration of ice and snow sports culture with tourism, education, and cultural entertainment industries had remained at an early stage, lacking deep synergy and coordinated development. The mechanisms for cross-industry collaboration had not been fully established, limiting the potential for resource sharing and synergy.

Additionally, the region had struggled with innovation in ice and snow sports culture. In areas such as product development, service design, and marketing strategies, there had been a lack of creativity and uniqueness, making it difficult to meet the increasingly diverse demands of consumers. These limitations had restricted the market potential and industrial value of ice and snow sports culture, thereby hindering the sustainable development and competitiveness of the winter sports industry.

3.4 Strategies and Recommendations for the Construction of Characteristic Ice and Snow Sports Culture under the "Yantai-Weihai" Blue Economic Belt

3.4.1 Enhancing Cultural Awareness and Dissemination

The "Yantai-Weihai" region had faced challenges in enhancing the awareness and dissemination of ice and snow sports culture. At present, the recognition and influence of ice and snow culture in this region had remained insufficient, and cultural promotion efforts had been inadequate. Despite possessing unique ice and snow resources and rich cultural heritage, the region had lacked effective promotional strategies and methods, resulting in limited external understanding of the "Yantai-Weihai" ice and snow sports culture. Furthermore, dissemination channels had been relatively singular, primarily relying on traditional media and festive events, while the application of new media and digital communication methods had been underutilized. This limitation had restricted the widespread promotion and deep integration of ice and snow culture. Therefore, strengthening cultural promotion and expanding communication channels had been key to improving the recognition and influence of the "Yantai-Weihai" ice and snow sports culture.

3.4.2 Strengthening Infrastructure Development and Operational Management

Yantai and Weihai had faced multiple challenges in the construction and management of ice and snow sports facilities. In terms of facility development, there had been issues with insufficient systematic planning and unreasonable distribution. The construction had not fully considered the distribution of ice and snow resources, population density, and market demand, leading to underutilized facilities and resource wastage.

Regarding operational management, a lack of professional and market-driven operational mechanisms had resulted in untimely facility maintenance and inconsistent service quality, which had affected the visitor experience and the lifespan of the facilities. In terms of funding, there had been an overreliance on government investment, with a lack of diversified financing channels. This had slowed down facility construction and caused shortages in operational funding. These issues had collectively constrained the efficiency and sustainability of ice and snow sports facilities, ultimately impacting the promotion and development of ice and snow sports in the "Yantai-Weihai" region.

3.4.3 Improving Talent Development and Recruitment Mechanisms

The "Yantai-Weihai" region had exhibited significant shortcomings in the development and recruitment of ice and snow sports professionals. At the time, talent development pathways had been unclear, and there had been a lack of systematic training programs and specialized educational resources, making it difficult to meet the growing demand for high-quality ice and snow sports professionals.

Additionally, the policies for talent recruitment had been insufficiently developed, lacking specificity and attractiveness, making it difficult to effectively attract and retain high-level ice and snow sports professionals. Moreover, incentive mechanisms had been inadequate, failing to fully

stimulate the motivation and creativity of talents, which had hindered the inheritance and development of ice and snow sports culture. These challenges had collectively constrained the prosperity and advancement of ice and snow sports culture in the "Yantai-Weihai" region and required effective solutions.

3.4.4 Promoting Industrial Integration and Innovative Development

The "Yantai-Weihai" region had faced issues with unclear integration pathways, a lack of innovative models, and insufficient policy support in the process of integrating ice and snow sports culture with related industries. At the time, the integration of ice and snow sports culture with tourism, education, and cultural entertainment industries had remained at an early stage, and there had been no mature integration models or mechanisms, limiting the potential for cross-industry synergy.

Additionally, the region had lacked innovation in its development models, with severe product and service homogeneity and an absence of locally distinctive innovations, making it difficult to meet the increasingly diverse consumer demands. Furthermore, the policy support system had remained underdeveloped, lacking targeted supportive policies and incentives, which had limited the depth and breadth of industry integration and innovation. These challenges had constrained the overall development of ice and snow sports culture in the "Yantai-Weihai" region and hindered industrial upgrades.

3.5 Analysis of Implementation Pathways

3.5.1 Exploration and Organization of Characteristic Ice and Snow Sports Culture

The "Yantai-Weihai" region had possessed abundant ice and snow resources and a unique ice and snow sports culture, yet efforts to explore and organize these cultural assets had remained insufficient. The region's distinctive ice and snow sports culture had contained deep regional characteristics and historical value. However, due to a lack of systematic research and documentation, its unique cultural value had not been fully showcased.

Additionally, the exploration of cultural connotations had not been in-depth enough, resulting in limited external recognition of the "Yantai-Weihai" ice and snow sports culture and hindering the formation of widespread cultural identity and heritage. Furthermore, the assessment of the cultural value of ice and snow sports in this region had not been comprehensive, leading to an underestimation of its potential economic, social, and cultural contributions. Moreover, the mechanisms for cultural inheritance had been incomplete, lacking effective transmission methods, which had put some valuable ice and snow sports cultural heritage at risk of being lost. These challenges had constrained the inheritance and development of ice and snow sports culture in the "Yantai-Weihai" region, highlighting the urgent need for systematic exploration and organization.

3.5.2 Integration of Ice and Snow Sports Culture with the Tourism Industry

During the integration of ice and snow sports culture with the tourism industry, Yantai and Weihai had faced issues such as a lack of diverse integration methods, unclear integration pathways, and unfulfilled synergistic effects. At that time, the integration of ice and snow sports culture with the tourism industry had primarily relied on traditional ice and snow festivals and sporting events, lacking diversified integration models and innovative approaches, making it difficult to meet the increasingly diverse needs of tourists.

Furthermore, the synergy between ice and snow sports culture and the tourism industry had not been fully realized, and the impact of winter sports on boosting tourism had been limited. The

integration process had also encountered obstacles such as differences in cultural perception, vague market positioning, and severe product homogeneity, which had hindered the deep integration and sustainable development of ice and snow sports culture and tourism. These issues had collectively obstructed the effective integration of ice and snow sports culture with the tourism industry in the "Yantai-Weihai" region, necessitating the exploration of new integration models and pathways to maximize the benefits of this synergy and promote the comprehensive development of the regional economy and society.

3.5.3 Strategic Positioning of Ice and Snow Sports Culture within the Blue Economic Belt

In the strategic planning of the "Yantai-Weihai" Blue Economic Belt, ice and snow sports culture had not yet occupied a significant strategic position, and its role and potential had not been fully explored. Despite the rich ice and snow resources and distinctive sports culture in Yantai and Weihai, winter sports had often been regarded as a secondary or peripheral industry in the broader development of the Blue Economic Belt, lacking a clear strategic positioning and long-term development plan.

This situation had led to insufficient coordination between ice and snow sports culture and the dominant industries of the Blue Economic Belt, such as the marine economy and high-tech industries, preventing the formation of effective industrial linkages and complementary advantages. Furthermore, the role of ice and snow sports culture in promoting regional economic transformation, enhancing city branding, and strengthening cultural soft power had not been fully recognized, limiting its strategic value within the Blue Economic Belt.

Therefore, integrating ice and snow sports culture into the development plan of the "Yantai-Weihai" Blue Economic Belt and clearly defining its strategic position had been crucial for promoting the comprehensive economic and social development of the region and enhancing the overall competitiveness of the Blue Economic Belt.

4. Conclusion

This study had thoroughly explored the construction status, existing challenges, and development strategies of characteristic ice and snow sports culture under the "Yantai-Weihai" Blue Economic Belt. The findings indicated that, despite its abundant ice and snow resources and unique geographical location, the "Yantai-Weihai" region had achieved some success in the development of ice and snow sports culture. However, it had still faced challenges such as insufficient cultural awareness and dissemination, difficulties in infrastructure construction and operation, obstacles in talent cultivation and recruitment, and a lack of industrial integration and innovation.

To enhance the recognition and influence of ice and snow sports culture, it had been necessary to strengthen cultural promotion, expand communication channels, improve facility construction and operational management, establish comprehensive talent training and recruitment mechanisms, and promote the deep integration and innovative development of ice and snow sports culture with related industries. Furthermore, the region had needed to explore and document its unique ice and snow sports culture more thoroughly, clarify its strategic position within the Blue Economic Belt, and maximize its potential in driving the tourism industry. These efforts had been essential for advancing regional economic transformation, upgrading urban branding, and enhancing cultural soft power.

Therefore, strengthening the construction of characteristic ice and snow sports culture under the "Yantai-Weihai" Blue Economic Belt had been of great significance in promoting the comprehensive economic and social development of the region and enhancing the overall competitiveness of the Blue Economic Belt.

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