

Research on Optimization Paths for Promoting High-Quality Development of the Sports Industry in the Guangdong-Hong Kong-Macao Greater Bay Area in the New Era

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Abstract

As one of the most open and economically vibrant regions in my country, the Guangdong-Hong Kong-Macao Greater Bay Area is an important engine for the national regional coordinated development strategy. The sports industry, as a crucial pillar industry for cultivating new economic drivers and enhancing urban competitiveness, is not only related to the implementation of the national strategy of building a strong sports nation, but also an important path for promoting regional integration and cultural co-construction. Based on the concept of high-quality development, and combined with the institutional characteristics, industrial structure, and innovation advantages of the Guangdong-Hong Kong-Macao Greater Bay Area, this paper systematically analyzes the main bottlenecks currently restricting the high-quality development of the sports industry in the Greater Bay Area, and proposes optimization paths from five dimensions: institutional coordination, structural optimization, science and technology and talent, cultural integration, and green development, aiming to provide theoretical support and policy recommendations for the coordinated development of the sports industry in the Greater Bay Area.

Keywords

Guangdong-Hong Kong-Macao Greater Bay Area, Sports Industry, High-Quality Development, Optimization Path

1. Introduction

The report of the 20th National Congress of the Communist Party of China clearly

stated that “high-quality development is the primary task of building a modern socialist country in all respects”, ([Central Committee of the Communist Party of China \[CPC\], 2022](#)), which provides fundamental guidance for the transformation and upgrading of various fields, including the sports industry. The sports industry is not only an important vehicle for meeting the people’s aspirations for a better life, but also a new engine for driving high-quality regional economic development. Compared with simply pursuing scale expansion, the “high-quality development” of the sports industry referred to in this article mainly refers to achieving multi-dimensional synergistic improvement by promoting industrial structure optimization, enhancing innovation capabilities, accelerating green and low-carbon transformation, and deepening cultural integration, while maintaining reasonable scale growth. This results in a leap in overall development level based on the unity of economic and social benefits.

The Guangdong-Hong Kong-Macao Greater Bay Area (hereinafter referred to as the “Greater Bay Area”) consists of nine cities in Guangdong Province, including Guangzhou, Shenzhen, and Zhuhai, and the two special administrative regions of Hong Kong and Macao. Currently, it has a resident population of 86 million and an economic output exceeding 14 trillion yuan, making it one of the most open and internationally competitive city clusters in my country. As an important bridge connecting the mainland and the international community, the Greater Bay Area possesses multiple advantages, such as policy synergy, technological leadership, and industrial integration, providing ample space for the high-quality development of the sports industry. According to the National Sports Industry Statistical Bulletin (2024), the total scale of the national sports industry reached 3.7 trillion yuan, with added value accounting for approximately 1.15% of GDP. ([General Administration of Sport of China \[GASC\], 2024](#)) Among them, the Greater Bay Area contributed more than 15%, and is in a leading position in the country in terms of sports consumption, event economy, and sports technology.

From an international perspective, world-class bay areas represented by the New York Bay Area, the San Francisco Bay Area, and the Tokyo Bay Area have accumulated a wealth of valuable experience in sports development. Studies have shown that the New York Bay Area, relying on its mature professional sports system, has achieved an organic integration of professional leagues with urban culture and community governance; the San Francisco Bay Area, leveraging Silicon Valley’s technological and talent advantages, has promoted the digital and intelligent upgrading of sports training, venue operation, and consumption scenarios; and the Tokyo Bay Area, under a sound policy and regulatory system, has incorporated sports into urban renewal and public service systems, constructing a refined sports governance framework ([Mi, 2025](#)).

In contrast, the sports industry in the Guangdong-Hong Kong-Macao Greater Bay Area still lags behind the aforementioned world-class bay areas in terms of collaborative governance mechanisms, original brand cultivation, and technological integration. Therefore, systematically studying the realistic foundation and bot-

tlenecks restricting the high-quality development of the sports industry in the Guangdong-Hong Kong-Macao Greater Bay Area, and proposing practical optimization paths, is not only an important guarantee for achieving the national strategic goal of “building a sports power”, but also a key task for promoting the coordinated development of the Greater Bay Area city cluster.

2. Current Status of High-Quality Development of the Sports

Overall, the Greater Bay Area is one of the regions with the greatest potential for the development of the sports industry in China. After years of development and accumulation, a relatively complete market system and industrial foundation have been gradually formed in the region, providing practical support for high-quality development. Industry in the Guangdong-Hong Kong-Macao Greater Bay Area

2.1. Gradual Improvement of the Policy System

The Greater Bay Area is characterized by “one country, two systems, and three legal jurisdictions”. While this unique system promotes diversified development, it also presents certain institutional obstacles to the coordinated development of the sports industry. First, there are significant differences in the sports management systems of Guangdong, Hong Kong, and Macao. The nine mainland cities are primarily government-led, while Hong Kong and Macao are mainly led by social organizations, exhibiting a high degree of marketization. This difference leads to inconsistent rules in sports event approval, venue operation, and industry standards. Cross-regional cooperation often requires meeting approval requirements from multiple locations simultaneously, and the cumbersome procedures increase the cost of organizing events. Second, the cross-border flow mechanisms for sports elements such as talent, capital, and equipment are imperfect. The professional qualifications of sports coaches, referees, and agents are not mutually recognized between Hong Kong, Macao, and the mainland. For example, Hong Kong sports coaches cannot directly and freely work in the mainland, and vice versa, which greatly restricts the free movement of professionals; the cross-border flow of sports equipment and capital also lacks convenient channels. Furthermore, there is a lack of a regular cross-regional coordination mechanism and a long-term cooperation mechanism. Currently, various regions in the Greater Bay Area are acting independently when formulating sports industry policies, lacking an authoritative and permanent institution to coordinate planning, monitoring, and evaluation. This fragmented governance model is ill-suited to the needs of integrated development, resulting in insufficient overall regional synergy.

2.2. The Industrial System Is Becoming Increasingly Sound

At present, the sports industry in the Greater Bay Area has formed a basic pattern of mutual support between manufacturing, services and technology, and the division of labor in the region is gradually becoming clearer. The four major cities of Guangzhou, Shenzhen, Hong Kong and Macao constitute the core engine, with

distinctive advantages in sports manufacturing, sports technology, event economy and sports services respectively. Cities such as Dongguan and Foshan have developed into sports equipment manufacturing centers and cultivated a number of competitive leading enterprises; Macao has promoted the formation of new forms of sports consumption through the “sports + tourism” model. According to publicly available data from the Guangdong Provincial Sports Bureau, the total scale of Guangdong’s sports industry exceeded 730 billion yuan in 2023, with a growth rate of about 13% and an added value of over 230 billion yuan (*Southern Daily*, 2024). This scale accounts for about one-fifth of the total sports industry in China. Various places in the Greater Bay Area have formed a multi-level and multi-format industrial structure through “sports + culture and tourism” and “sports + technology” and other “sports +” forms, laying a solid material foundation for the high-quality development stage.

2.3. Innovation Capabilities Continue to Improve

The favorable technological innovation environment in the Greater Bay Area has created favorable conditions for empowering the sports industry. Emerging “sports + technology” models are rapidly emerging in the region. Big data, artificial intelligence, cloud computing, and other technologies are widely applied in areas such as competitive training, event broadcasting, venue management, and sports health. Digital sports formats such as smart venues, virtual reality event experiences, and online fitness are flourishing, injecting new momentum into sports consumption. For example, the event live-streaming cloud platform jointly developed by Guangdong, Hong Kong, and Macao has made cross-border event broadcasting more convenient and efficient; the application of artificial intelligence technology in athlete training monitoring has improved the scientific level of training. Furthermore, the development of sports management and sports technology disciplines in universities in the Greater Bay Area is continuously strengthening, and joint research platforms with enterprises are being built, cultivating a large number of cross-disciplinary talents for the sports industry. The optimized innovation and entrepreneurship environment has also fostered a number of specialized and innovative enterprises, achieving breakthroughs in niche areas such as smart wearables, virtual sports, and sports medicine, providing important support for the high-quality development of the sports industry.

3. Major Problems Restricting the High-Quality Development of the Sports Industry in the Greater Bay Area

In the context of the new era, the development of the sports industry in the Greater Bay Area has moved from a stage of “high-speed growth” to a stage of “high-quality development”. However, in this process, some deep-seated structural and institutional obstacles have become increasingly prominent, mainly in the following three aspects:

3.1. Prominent Institutional and Mechanism Barriers and Insufficient Collaborative Governance Capabilities

The Greater Bay Area is characterized by “one country, two systems, and three legal jurisdictions”. While this unique system promotes diversified development, it also brings institutional obstacles to the coordinated development of the sports industry. First, there are significant differences in the sports management systems of Guangdong, Hong Kong, and Macao. The nine cities on the mainland are primarily government-led, while Hong Kong and Macao are primarily social organizations-led, with a high degree of marketization. This difference leads to inconsistent rules in sports event approval, venue operation, and industry standards. Cross-regional cooperation often requires meeting approval requirements from multiple locations simultaneously, and the cumbersome procedures increase the cost of organizing events. Second, the cross-border flow mechanisms for sports elements such as talent, capital, and equipment are imperfect. The professional qualifications of sports coaches, referees, and agents are not mutually recognized between Hong Kong, Macao, and the mainland. For example, Hong Kong sports coaches cannot directly and freely work on the mainland, and vice versa, which greatly restricts the free movement of professionals; the cross-border flow of sports equipment and capital also lacks convenient channels. Furthermore, there is a lack of a regular cross-regional coordination mechanism and a long-term cooperation mechanism. Currently, various regions in the Greater Bay Area are acting independently when formulating sports industry policies, lacking an authoritative and permanent institution to coordinate planning, monitoring, and evaluation. This fragmented governance model is ill-suited to the needs of integrated development, resulting in insufficient overall regional synergy.

3.2. Imbalanced Industrial Structure and Severe Homogenization of Competition

Zhang and Qin (2021) research shows that the high-quality economic development within the Greater Bay Area exhibits a “high-medium-low” gradient pattern, with significant differences in the development foundation and functional positioning of various cities. The development of the sports industry in the Greater Bay Area also shows similar characteristics. There is an uneven distribution of the sports industry’s development from “center” to “periphery”. On the one hand, core cities such as Hong Kong, Macau, Guangzhou, and Shenzhen possess abundant sports resources and well-developed infrastructure, attracting numerous events and investments, forming industry hubs. On the other hand, some peripheral cities, such as Zhaoqing, Jiangmen, and Huizhou, are relatively weak in terms of sports infrastructure, event resources, and financial investment, resulting in overall lagging development. This imbalance in regional development prevents the full complementarity of sports resources within the Greater Bay Area, limiting the realization of economies of scale.

Furthermore, the problem of homogeneous competition among cities is also

prominent. In recent years, many cities have successively launched similar mass sports events and programs. Events such as the Guangzhou Marathon, Shenzhen Marathon, Hong Kong Standard Chartered Marathon, and Macau International Marathon all have a scale of tens of thousands of participants, with most events concentrated in November and December each year, showing convergence in terms of course setup, event level, and business model. In addition to competitions, various regions are also competing to build sports parks, fitness towns and other projects. However, the lack of differentiated positioning and brand characteristics leads to waste of resources, fragmented brand influence and difficulty in cultivating regional brand competitions or distinctive sports industry clusters with international influence.

3.3. Weak Innovation System and Insufficient Talent Support

Innovation is the primary driving force for high-quality development. While the Greater Bay Area boasts a strong foundation in technological innovation, its sports industry currently suffers from weaknesses in innovation systems and talent support. First, its ability to create original sports event IPs and brands is limited. Although the region has numerous sports events, a significant portion remain at the “imported” or “imitative” stage, lacking local sports event IPs with distinctive Lingnan cultural characteristics and international recognition. Second, the integration of “sports + technology” needs further improvement. The application of technologies such as artificial intelligence, big data, and virtual reality in sports training, event broadcasting, and audience interaction is limited, and high-tech elements have not been fully integrated into the sports industry chain. Third, there is a disconnect between talent cultivation and industry needs, with a shortage of professional sports management and sports technology personnel. The Greater Bay Area’s sports industry urgently needs talent with multi-skilled and innovative backgrounds, but targeted courses and programs from universities and training institutions are still incomplete, the industry-academia-research collaboration mechanism is not yet sound, and there is a relative shortage of high-level sports management, sports technology, and sports finance talent, making it difficult to support the sports industry’s innovation-driven transformation.

4. Strategies to Promote the High-Quality Development of the Sports Industry in the Greater Bay Area

Based on the new stage of development in the new era, the key to the high-quality development of the sports industry in the Greater Bay Area lies in achieving multi-dimensional breakthroughs in institutional synergy, structural optimization, technological empowerment, and cultural integration.

4.1. Guided by Institutional Synergy, Improve the Regional Sports Governance System

The key to promoting high-quality development of the sports industry in the

Greater Bay Area lies in breaking down institutional barriers and achieving collaborative governance. Drawing on the experience of the San Francisco Bay Area in coordinating large-scale event resources and integrating professional clubs with urban development through regional sports alliances, the Greater Bay Area should further improve its cross-regional sports governance framework based on existing cooperation mechanisms. First, establish a regular Greater Bay Area sports collaboration mechanism. Drawing on regional cooperation experience, promote the establishment of permanent institutions such as the “Guangdong-Hong Kong-Macao Greater Bay Area Sports Development Committee”, jointly composed of governments, sports organizations, and research institutions from the three regions, to coordinate the alignment of sports policies, industry planning, and resource allocation. Second, promote policy innovation to facilitate the free flow of sports elements. Taking the 15th National Games as an opportunity, introduce mutual recognition and interoperability arrangements in areas such as event approval, talent qualifications, and financial transactions, exploring institutional innovations that allow for “one event, three regions” (referring to cooperation between the three regions). For example, establish a mutual recognition list of sports talent qualifications in the Greater Bay Area, allowing qualified Hong Kong and Macao sports professionals to practice in the mainland; establish a green channel for event approval, simplifying procedures and shortening processes for events jointly organized by Guangdong, Hong Kong, and Macao; and improve cross-border sports goods customs clearance facilitation measures to increase transportation efficiency. Finally, a sports data and information sharing platform for the Greater Bay Area will be built to integrate data such as event calendars, venue bookings, and talent supply and demand in the three regions, and to achieve information sharing and regulatory collaboration through big data and blockchain technology.

4.2. Guided by Complementary Differences, We Will Build a Multi-Core, Interconnected Industrial Structure

The fundamental solution to overcoming structural imbalances and homogeneous competition lies in differentiated positioning and staggered development. The Greater Bay Area should leverage its own resource endowments and industrial advantages to build a new industrial landscape where “each region is beautiful in its own way, and all are beautiful together”. This requires shifting from a “horizontal convergence” to an integrated layout of “horizontal differentiated development and vertical deep integration”. The primary task is to clarify the strategic division of labor among core cities and leverage their leading role. Hong Kong can leverage its advantages as an international financial center and professional services industry, focusing on headquarters economies such as sports finance, international marketing, and arbitration, attracting international sports organizations and events to establish itself as an international sports capital. Macau can leverage its advantages as a world tourism and leisure center to deepen the integration of “sports + tourism”, strengthening its distinctive entertainment event brands such

as motorsports and esports. Guangzhou can consolidate its position as a strong city in professional sports and build an international sports event brand center; Shenzhen should fully leverage its technological innovation advantages, focusing on sports technology research and development and high-end intelligent equipment manufacturing, building a high ground for sports technology innovation. At the same time, the unique advantages of other node cities should be fully activated to form a regional synergy effect. Support Dongguan in building a “basketball city” and deeply explore its basketball industry chain; promote Foshan to integrate traditional sports such as martial arts and dragon boat racing with modern sports to create a “Kung Fu Sports” brand; guide Zhuhai and Huizhou to utilize their coastal resources to develop marine sports and leisure sports industries; encourage Zhongshan and Jiangmen to build baseball and volleyball cities, and cultivate professional sports clubs and youth competitions. Through clear division of labor and complementary advantages, resources will be optimized, and cities will jointly build a “multi-core driven, circle-linked” sports industry spatial layout.

4.3. Driven by Technology and Talent, Stimulate Innovation in the Sports Industry

Technology and talent are the “twin engines” supporting the transformation and upgrading of the sports industry. In terms of technological empowerment, drawing on the sports technology innovation of the San Francisco Bay Area, the Greater Bay Area can achieve scientific training and personalized health checkups through AI, big data, and wearable device technologies. The Greater Bay Area should actively leverage its world-class technological innovation advantages to promote the deep integration of “sports + technology”. Firstly, it should accelerate the construction of smart venues. Utilizing new technologies such as 5G, IoT, and AI, existing venue facilities should be upgraded to improve event operation efficiency and audience experience. Support should be given to digital sports formats such as cloud events, virtual sports, and online fitness to expand new sports consumption scenarios; sports equipment companies should be encouraged to increase R&D investment, develop high-end and customized smart sports equipment, and enhance the technological content and international competitiveness of the industrial chain. Secondly, in terms of talent support, an integrated sports talent training system encompassing industry, academia, research, and application should be built. Universities and enterprises in the three regions should be encouraged to offer more interdisciplinary majors, such as “sports + technology” and “sports + management”, achieving mutual course selection and credit recognition; cross-border training and innovation centers should be established to attract young people from Hong Kong and Macau to participate in sports entrepreneurship. At the same time, we will build a sports talent database for the Greater Bay Area, formulate a list of urgently needed sports talents in the Greater Bay Area, optimize the practice policies for high-end talents from Hong Kong, Macao and international countries, and provide convenience in terms of visas, certifications and cross-bor-

der practice, so as to create a highland for international sports innovation talents.

4.4. Using Cultural Integration as a Bond, Shaping the Soft Power of Sports in the Greater Bay Area

Culture is the soul of sports and a crucial support for enhancing the soft power of the Greater Bay Area. Drawing on the experience of the New York Bay Area in shaping urban culture through professional sports, the Greater Bay Area should delve into its shared Lingnan cultural resources to create a “Humanistic Sports Bay Area” with international influence. First, it should strengthen the development of traditional sports brands, collaborating with cultural and sports departments in the three regions to modernize traditional sports such as dragon boat racing and martial arts, elevating them from folk activities to internationally standardized modern sports event brands, creating iconic events such as the “Guangdong-Hong Kong-Macao Greater Bay Area International Dragon Boat Festival”. Second, it should promote the integrated development of “sports + culture and tourism”, launching high-quality sports tourism routes such as “traveling with the events” around the Greater Bay Area’s natural landscapes and historical culture, converting the “traffic” of sports events into “retention” of cultural and tourism consumption, and cultivating new sports consumption scenarios. Third, it should strengthen the international dissemination of sports culture. Leveraging the international promotional role of Hong Kong and Macao, it should tell the story of the Greater Bay Area sports to the world through multilingual documentaries, international tours, digital museums, and other forms, enhancing its cultural soft power and international appeal.

4.5. Guided by Green Principles, Promote Sustainable Sports Development

Green development is the foundation of high-quality development in the sports industry, and we must unswervingly follow the path of green development in the sports industry. This is not only a requirement for practicing the concept that “lucid waters and lush mountains are invaluable assets”, but also an inevitable choice for the sports industry to cope with the rigid constraints of the external environment. In promoting the high-quality development of the sports industry in the Greater Bay Area, we can learn from the experience of the Tokyo Bay Area in implementing energy conservation, environmental protection, and sustainability concepts in hosting large-scale events, such as measures in venue reuse, renewable energy application, recycling resources for medals, and low-carbon transportation systems. At the same time, we also need to promote multi-faceted collaborative efforts with a systemic approach. First, we must adapt to the trend of green and low-carbon development, build a green event system and low-carbon sports venues, and improve the closed loop of green manufacturing and circular economy. We should promote the application of renewable energy such as solar and wind power in sports venues and implement green building technologies and intelligent man-

agement systems. Second, in terms of mechanism building, we must implement the “Green Sports Development Action Plan (2023-2025)”, establish a green certification and carbon accounting mechanism covering the entire process of event preparation, venue construction, and equipment production, scientifically formulate emission reduction paths, and guide the sports equipment manufacturing industry towards green and low-carbon transformation. In addition, green concepts should be integrated into the entire process of sports activities, and actions such as green travel, low-carbon spectating, and trade-in should be encouraged in major events and mass fitness activities, so that energy conservation and environmental protection become an important way for the public to participate in sports, and “Green Bay Area Sports” becomes a new calling card for showcasing the region’s image.

5. Conclusion

Promoting the high-quality development of the sports industry in the Guangdong-Hong Kong-Macao Greater Bay Area is not only an important measure to implement the national strategy of building a strong sports nation and promote regional integration, but also a crucial support for building a world-class bay area and a world-class city cluster. In this new era and on this new journey, the Greater Bay Area’s sports industry has moved from factor-driven to innovation-driven development. Achieving high-quality development hinges on institutional synergy as a guarantee, technological innovation as a driver, cultural integration as its soul, and green development as its guide.

In the future, we should actively build a diversified governance structure guided by the government, led by the market, and with social collaboration. Only by optimizing the policy system, stimulating innovation, and cultivating cultural confidence can we transform the Greater Bay Area into a vibrant and globally influential innovation hub for the sports industry, providing a “Bay Area model” for the development path of regional sports in a Chinese-style modernization.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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