

# Cross-Regional Co-construction and Reconstruction Path of Guangdong's Sports, Culture, and Tourism Industry Ecosystem under the Regional Coordinated Development Strategy

Ju Jiang

Department of Physical Education, Guangdong University of Finance, Guangzhou, China

## ABSTRACT

Under the macro background of deeply advancing the regional coordinated development strategy and accelerating the construction of a new development paradigm, exploring the cross-border integration of industries and inter-regional collaborative governance has gradually become the theoretical direction for optimizing the macroeconomic spatial layout and cultivating new growth poles for the regional economy. As a representative province with strong economic vitality and significant gradient characteristics in regional development, Guangdong Province, in the process of promoting the integrated development of sports, culture, and tourism industries, objectively faces the theoretical demand of evolving from the relatively isolated operation of single industrial elements to a cross-regional composite industrial ecosystem. Moving beyond traditional empirical models and quantitative measurements, this paper adopts a theoretical speculative perspective of qualitative research, combining regional coordinated development theory, industrial ecology theory, and spatial political economy theory, to systematically explore the cross-regional co-construction and reconstruction paths of Guangdong's sports, culture, and tourism industry ecosystem under the regional coordinated development strategy. The research posits that Guangdong's steady construction of this ecosystem is a practical reflection of resolving regional development imbalances and responding to the macro spatial pattern optimization strategy. Its theoretical connotation is mainly reflected in the systematic coupling of cross-border heterogeneous elements and the cross-spatial reconstruction of value networks. Addressing the phased realistic dilemmas currently faced by Guangdong in advancing this initiative—such as administrative friction in cross-regional governance mechanisms, data and infrastructure shortcomings in factor mobility, and the need to enhance internal industrial division and collaborative innovation capacity—this paper explores a composite dynamic mechanism superimposed by the external drive of institutional innovation, the endogenous momentum of digital technology empowerment, and the objective traction of evolving market demands. Based on this, the study proposes reconstruction paths with certain academic exploratory value and practical reference significance, spanning from reshaping the cross-regional collaborative governance system to alleviate administrative division restrictions, advancing the interconnection of regional infrastructure to promote factor flow, deepening internal industrial division and collaboration to explore differentiated development, and shaping a comprehensive regional brand IP matrix to enhance cultural soft power. This aims to provide theoretical reference for Guangdong Province in advancing cross-border industrial synergy and constructing a regional industrial ecosystem.

## KEYWORDS

Regional coordinated development; Sports, culture, and tourism industry ecosystem; Cross-regional co-construction; Spatial reconstruction; High-quality development

# 1. INTRODUCTION

As China's economic and social development steadily marches toward the stage of high-quality development, the traditional regional economic development model—relying on single-industry drives and relatively independent administrative divisions—gradually reveals certain limitations in resource allocation efficiency and collaborative innovation capacity when coping with the increasingly complex global economic environment and the evolving diversified consumer demands. Attempting to break through inherent administrative geographical boundaries and industrial classifications by building an open, collaborative, and symbiotic industrial ecosystem to cultivate new regional competitive advantages is gradually becoming an important academic issue in modern regional economics and public governance. The sports, culture, and tourism industries, as representatives of the modern service sector with high interrelatedness, penetration rates, and strong socioeconomic spillover effects, not only serve as economic means to stimulate domestic demand and unleash regional consumption potential through their deep cross-border integration, but also play a positive role in satisfying the people's growing spiritual and cultural needs and enhancing overall national health literacy.

As a frontier of China's reform and opening-up, Guangdong Province has a relatively high total economic output. However, between the core area of the Pearl River Delta and the ecological development areas of eastern, western, and northern Guangdong, there are objectively significant gradient differences in economic development levels, public infrastructure construction, endowments of advanced production factors, and the maturity of modern service industries. To gradually alleviate this regional contradiction that restricts the high-quality and balanced development of the entire province, Guangdong has successively proposed the "One Core, One Belt, One Area" regional development pattern planning and the "Hundred, Thousand, Ten Thousand Project" aimed at promoting coordinated urban-rural and regional development in recent years. Guided by this regional coordinated development strategy, relying on Guangdong's rich Lingnan humanistic heritage, diverse natural ecological landscapes, and a sports industry foundation of a certain scale, steadily exploring the cross-regional co-construction and reconstruction of the sports, culture, and tourism industry ecosystem is not only a positive response to the provincial macro-spatial development strategy but is also seen as a feasible path to activate the comparative advantages of eastern, western, and northern Guangdong and explore the cross-temporal and spatial optimal allocation of provincial resource factors. However, the cross-regional co-construction of an industrial ecosystem is often a systematic engineering project involving the coordination of multiple interests, complex factor flows, and institutional optimization. Under the macro context of regional coordinated development, scientifically understanding the underlying theoretical logic of the cross-border synergy of the sports, culture, and tourism industries, objectively reviewing the institutional frictions existing in current cross-regional governance, and subsequently exploring a relatively scientific, reasonable, and sustainable spatial reconstruction path are epochal subjects that require in-depth answers from both theoretical and practical circles.

## 2. THEORETICAL CONNOTATION AND ERA SIGNIFICANCE OF GUANGDONG'S SPORTS, CULTURE, AND TOURISM INDUSTRY ECOSYSTEM UNDER THE REGIONAL COORDINATED DEVELOPMENT STRATEGY

### 2.1. Definition of the Theoretical Connotation of the Sports, Culture, and Tourism Industry Ecosystem

The theory of industrial ecosystems originates from the deep intersection of natural ecology and modern industrial organization theory. Introducing it into the research on the integrated development

of the sports, culture, and tourism industries implies that the relevant industrial entities, resource factors, and institutional environments within a specific region should be viewed as an interdependent, co-evolving, and dynamically balanced complex ecosystem. Specifically, its theoretical connotation is mainly reflected in two dimensions: the systematic coupling of cross-border elements and the cross-spatial reconstruction of value networks.

On the one hand, it is manifested in the systematic coupling and symbiotic evolution of cross-border heterogeneous elements. Traditional industrial cluster theories often focus on the geographical concentration of homogeneous or complementary enterprises within the same industrial chain, aiming to obtain agglomeration economic effects. In contrast, the sports, culture, and tourism industry ecosystem places greater emphasis on the deep interaction and systematic coupling among cross-border elements with a certain degree of heterogeneity. From the perspective of this ecosystem, the competitive vitality of sports events, the historical heritage of cultural relics, and the spatial carrying function of tourism landscapes are no longer isolated static production factors. Instead, they are expected to form an interdependent and mutually reinforcing symbiotic relationship through relatively complex interactive mechanisms. This coupling evolution is often not a simple spatial superimposition or mechanical combination in a physical sense but tends to achieve deeper integration in profound dimensions such as service experience concepts, technological application models, and commercial operation mechanisms. For instance, various market entities within the ecosystem, by sharing customer behavioral characteristics under compliance premises, jointly participating in the construction of underlying service infrastructure, and collaboratively researching and developing composite experiential products, can to a certain extent lower their respective marginal search and transaction costs, thereby promoting a Pareto improvement in the overall resource utilization efficiency of the ecosystem.

On the other hand, it is manifested in the cross-spatial reconstruction and multi-dimensional extension of value networks. One of the prominent theoretical features of the sports, culture, and tourism industry ecosystem is that it transcends, to a certain extent, the traditional unidirectional, linear "supplier-manufacturer-consumer" value transmission chain, attempting instead to construct a multi-dimensional, stereoscopic, and networked value creation system. Within this network system, R&D creative institutions and capital operation centers located in the core cities of the Pearl River Delta explore collaborative value creation and rational distribution with nature experience bases, event venues, and digital marketing and distribution platforms situated in peripheral ecological regions like northern Guangdong through node connections and contractual cooperation. On this basis, cross-spatial reconstruction means that this value network should not merely be confined to a single administrative division. Against the macro backdrop of regional coordinated development, the construction of the ecosystem inherently calls for advanced production factors such as capital, frontier technology, high-end talent, and information to achieve relatively smooth circulation within a broader provincial geographical space. Such circulation allows the value chain, originally concentrated in the core area, to moderately extend and lay out toward vast hinterlands with relatively reasonable factor costs and strong ecological carrying capacity, with the aim of achieving spatial balance and elevation of the overall industrial added value of the province.

## **2.2. The Internal Logic of Regional Coordinated Development and the Construction of Guangdong's Sports, Culture, and Tourism Industry Ecosystem**

Building a cross-regional sports, culture, and tourism industry ecosystem is not a short-term industrial policy adjustment but deeply aligns with Guangdong Province's long-term strategic logic of resolving regional development contradictions and optimizing macro-spatial patterns.

Firstly, it is a realistic and objective demand to resolve the contradiction of unbalanced regional development. The dual economic structure and spatial polarization characteristics that have long existed within Guangdong Province restrict, to a certain extent, the pace of the province's economic

and social advancement toward more balanced, high-quality development. The spontaneous market forces over the years have caused some high-quality financial capital, advanced technologies, and innovative human capital to aggregate toward the Pearl River Delta core area. While bringing prosperity to the core area, this also leaves ecological development areas such as eastern, western, and northern Guangdong facing challenges of weak industrial upgrading and a relative drain of high-quality factors. From a regional economics perspective, attempting to construct a cross-regional sports, culture, and tourism industry ecosystem is essentially an exploration of establishing a catalytic mechanism for the bidirectional flow and redistribution of factors. Through scientific coordination at the industrial level guided by the macro-spatial strategy of "One Core, One Belt, One Area," it is expected to guide the relatively abundant industrial capital, advanced management experience, and leisure consumer traffic from the Pearl River Delta region to orderly transfer in a gradient manner toward ecological development areas equipped with excellent natural landscapes and unique ethnic cultural resources [1]. Such transfers not only find new investment targets for capital and production capacity from the core area but also inject the wellspring of industrial development into less developed regions, aiding in achieving mutual benefit and win-win outcomes between regions.

Secondly, it resonates with the internal fit of macro-spatial pattern optimization and the rural revitalization strategy. The cross-regional co-construction of an industrial ecosystem is not only a reshaping of industrial space at the economic geography level but is also regarded as a concrete practical path to implement national and provincial grand development strategies and advance the modernization of spatial governance systems. Currently, Guangdong Province is deeply implementing the "Hundred, Thousand, Ten Thousand Project," which aims to systematically alleviate the shortcomings of regional coordinated development by strengthening the comprehensive strength of the county economy, advancing new urbanization construction, and achieving comprehensive rural revitalization. The vast county, town, and village areas are often precisely the regions richly endowed with traditional ethnic sports, precious intangible cultural heritage, and pristine natural landscapes. Steadily advancing the downward extension and construction of the sports, culture, and tourism industry ecosystem is expected to gradually transform these cultural undertakings and natural resources—which are scattered in rural areas and still in the primary development stage—into modern service products with certain market competitiveness through the guidance of modern business models and the assistance of digital technology [2]. Through the moderate empowerment of industrial integration, it helps activate some idle land and ecological assets in the countryside, broadening local employment channels and diversified income sources for residents, thereby providing a somewhat sustainable industrial support for the effective implementation of relevant macro projects at the grassroots level.

### **3. PHASED REALISTIC DILEMMAS FACING THE CROSS-REGIONAL CO-CONSTRUCTION OF GUANGDONG'S SPORTS, CULTURE, AND TOURISM INDUSTRY ECOSYSTEM**

Although constructing a cross-regional sports, culture, and tourism industry ecosystem holds rather positive epochal significance in underlying theoretical logic and macro-policy orientation, during specific practical advancement, constrained by administrative management inertia, implicit friction in factor circulation, and industrial structures yet to be optimized, Guangdong currently faces a series of realistic dilemmas that need to be gradually overcome at this stage.

#### **3.1. Macro Synergy Level: Cross-Regional Governance Mechanisms Exhibit Certain Frictions and Costs**

The cross-regional co-construction of an industrial ecosystem often requires breaking through traditional management boundaries based on territorial administrative divisions to explore and establish a cross-regional governance model grounded in the spirit of contract and multi-center

participation. However, existing institutional mechanisms still exhibit certain exploratory characteristics and path dependence when adapting to this new spatial governance demand. Under the current territorial administrative management and evaluation system, local governments—based on their own regional development plans and fiscal tax considerations—tend objectively to prioritize resources toward independent industrial projects within their administrative jurisdictions. This consideration, based on local economic rationality, increases to some extent the difficulty of unified deep planning, joint development, and brand sharing of high-quality sports, culture, and tourism resources across cities and counties, sometimes causing complete natural geographical units and cultural contexts to face fragmentation during development. Furthermore, cross-regional synergy often involves relatively complex explicit cost sharing and implicit interest games. At present, regarding core concerns such as the co-construction of cross-regional large-scale transportation infrastructure, the synergy of basin ecological environmental protection, and the associated revenue circulation brought by mutual tourist traffic, the provincial level is still exploring the construction of a more scientific, perfect, and somewhat binding interest compensation system and horizontal transfer payment mechanism. This leads some regions to face a situation where synergistic motivation is still insufficient due to concerns about asymmetrical input and output when participating in cross-regional ecosystem construction.

Concurrently, policy matching and institutional alignment face certain explicit friction challenges. Due to differences in industrial attributes and regulatory requirements, policy regulations pertaining to different industries—such as sports, culture, and tourism—in dimensions like land use property change approvals, project environmental access standards, and specific directions for special support funds, are often distributed across different government functional departments such as natural resources, ecological environment, culture and tourism, and sports. When these industries attempt to deeply integrate and conduct cross-administrative spatial layouts, relevant enterprises sometimes encounter policy friction costs resulting from inconsistent policy standards and disjointed connections. Meanwhile, normal cross-regional and cross-departmental overall coordination mechanisms are still undergoing continuous refinement. This causes early communication and approval procedures to potentially be protracted when advancing major cross-border sports, culture, and tourism projects, such as cross-city long-distance outdoor hiking trails and large-scale composite sports and tourism resorts. Administrative synergy efficiency needs further improvement, which to some extent may decelerate the landing process of the overall strategic planning of the industrial ecosystem.

### **3.2. Factor Mobility Level: Significant Room for Improvement in Cross-Regional Resource Allocation Efficiency**

The foundation for the survival of a relatively healthy and active industrial ecosystem is that various production factors can circulate freely with lower friction and higher efficiency within the system. Currently, Guangdong's sports, culture, and tourism industries still have room for further optimization in the physical smoothness and digital interconnectivity of cross-regional factor allocation.

At the digital factor level, data interoperability bottlenecks restrict the depth of digital empowerment to a certain extent. With the development of the digital economy, data has gradually become a vital production factor driving the iterative upgrading of modern service industries. However, massive amounts of data distributed across different cities in Guangdong—such as operating data of large sports venues, digital archives of historical and cultural heritage, and tourist behavioral trajectories in major scenic spots—are sometimes dispersedly stored in different government data centers or enterprise clouds due to differences in management entities, forming "data silos" with certain barriers. Because the interface standards for unified provincial big data underlying architectures and normalized data sharing and exchange protocols are still being gradually advanced and refined, these precious data resources still face dual technical and institutional challenges in achieving safe and efficient cross-regional interconnectivity [3]. This relative fragmentation at the data level limits, to

some extent, the breadth and depth of intelligent applications such as precise cross-regional tourist profiling and personalized recommendation of cross-city tourism routes based on big data analysis.

At the physical factor level, the interconnectivity of infrastructure and public service networks remains insufficient. Although Guangdong's overall main transportation network is relatively developed, there may still be some connection friction in the transportation micro-circulation systems connecting the core source areas of the Pearl River Delta with some remote ecological cultural tourism destinations. The level and road conditions of tourism highways in some cross-city border areas differ, and the overall planning of modern public transportation transfer hubs needs strengthening, which to some extent increases the cross-regional transportation time cost for tourists. Additionally, there are certain gradient differences in the construction of soft facility systems for cross-regional tourism public services. For instance, regarding the construction of smart tourism guidance with a unified visual identity system, cross-city emergency medical rescue linkage systems, and standardized layouts for RV camping networks, the pace of advancement and construction standards vary from place to place. This discrepancy in service standards might have a certain impact on the overall experience continuity of tourists conducting deep cross-regional tours within the ecosystem.

### **3.3. Industrial Structure Level: Internal Division of Labor and Collaborative Innovation Capacity Need Strengthening**

The gradual maturation of an industrial ecosystem depends largely on whether a reasonable division of labor and collaboration system based on comparative advantages can be formed among its internal market entities and different regions, and whether they possess a relatively strong capacity for collaborative innovation.

In terms of regional industrial division, there are lingering concerns about the convergence of industrial models. Against the backdrop where provincial macro-industrial coordination and spatial planning guidance still need continuous deepening, some regions may easily be constrained by short-term path dependency when advancing sports, culture, and tourism industries, exhibiting a certain degree of bandwagon construction. For example, when a certain tourism format achieves initial market response, neighboring cities may tend to launch folk culture villages with similar themes or local events with similar positioning in a short period. This convergent development model based on superficial imitation not only easily leads to mutual dispersion of regional tourist sources and price competition but also leaves the entire sports, culture, and tourism industry ecosystem facing challenges due to a relative lack of highly recognizable core competitiveness when confronting the broader domestic and international markets externally.

In terms of product and brand systems, high-value-added composite products and comprehensive brand matrices have not fully matured. Observing some integrated products currently in the market, their essence may still reside in the preliminary stage of physical superimposition of industrial elements, leaving room for improvement in cultural core excavation and experiential depth. There is a relatively limited supply of high-value-added, deep-composite products (e.g., high-end immersive sports and health wellness projects) that profoundly integrate the spiritual connotations of sports, the unique humanistic heritage of Lingnan, and are supplemented by high-quality tourism services. On the other hand, from the macro perspective of the whole province and even the Guangdong-Hong Kong-Macao Greater Bay Area, although Guangdong possesses many single scenic spot brands or individual event IPs with certain regional awareness, a super comprehensive sports, culture, and tourism brand matrix with strong international influence and broad market appeal is still gestating and being explored at the provincial macro level. This relative weakness in the macro-brand ecology means that Guangdong's cultural tourism industry faces a brand premium threshold that needs to be gradually overcome in the process of climbing to the mid-to-high end of the global industrial chain and value chain.

## **4. ANALYSIS OF THE DYNAMIC MECHANISM FOR THE CROSS-REGIONAL CO-CONSTRUCTION OF GUANGDONG'S SPORTS, CULTURE, AND TOURISM INDUSTRY ECOSYSTEM**

Exploring the driving forces behind the cross-regional co-construction of an industrial ecosystem is the logical starting point for scientifically formulating an optimization path. The evolution of Guangdong's sports, culture, and tourism industry ecosystem can be viewed as a complex dynamic process continuously advancing under the interwoven and superimposed effects of external institutional innovation guidance, internal digital technology empowerment, and the objective shifting of market demands.

### **4.1. External Driving Forces of Institutional Innovation and Policy Guidance**

In the regional economic governance system, the forward-looking guidance of macro policies and the adaptive adjustment of institutional environments are often the key external variables in alleviating the solidification of vested interests, lowering transaction costs, and promoting regional industrial spatial reconstruction.

On the one hand, the coordination of top-level design and macro strategy plays a crucial pulling role. A series of macro policy documents steadily issued by the Guangdong Provincial Government and relevant authorities in recent years—regarding regional coordinated development, the construction of a strong cultural province, and the promotion of high-quality development in the sports industry—provides an authoritative policy foundation and directional guidance for the cross-regional co-construction of the sports, culture, and tourism industry ecosystem. This top-down top-level design architecture helps quickly forge reform consensus among local governments and market entities across all levels, holistically allocating relevant public resources, thereby mitigating to a certain extent the deficiencies that pure market mechanisms may exhibit when handling the supply of cross-regional public goods. Furthermore, the exploratory application of policy toolboxes (such as establishing provincial guiding funds for regional coordinated development and exploring flexible land policies in eligible key projects) holds the promise of lowering institutional friction costs and trial-and-error risks for various cultural tourism enterprises when participating in the development of cross-regional composite projects. The continuous advancement of such institutional innovation provides a relatively solid external guarantee for the physical spatial expansion and business model iteration of the industrial ecosystem.

On the other hand, the gradual alleviation of administrative barriers to factor mobility further optimizes the development environment. With the advancement of the construction of a unified national market and the deepening of the regional economic integration process, various implicit and explicit policy restrictions that have long affected the smooth cross-administrative flow of core production factors such as capital and technology are being gradually and prudently optimized or relaxed. Seeking coordinated development on a larger spatial scale, local governments have actively begun attempting to sign deep cross-city industrial cooperation framework agreements. This appropriate relaxation at the administrative and institutional levels objectively promotes the relatively smooth flow of modern corporate management experience, financial capital, and creative talents accumulated in the Pearl River Delta core area toward eastern, western, and northern Guangdong, which are resource-rich but relatively factor-deficient. This provides possibilities and space for the cross-regional recombination and optimal allocation of underlying elements in the sports, culture, and tourism industry ecosystem.

## **4.2. Endogenous Empowering Role of Digital Technology and New Productive Forces**

The new generation of information technology and new productive forces, represented by the digital economy, are gradually reshaping the industrial organization forms and production functions of modern service industries in deep and structural ways, constituting a vital endogenous dynamic driving the industrial ecosystem to evolve towards more advanced forms.

Digital technology significantly enhances the operational efficiency of industrial chains by reshaping underlying architectures. The steady popularization of digital infrastructures such as IoT sensing devices, cloud computing, and high-speed communication makes the dynamic monitoring and intelligent assisted allocation of personnel, logistics, and information flows across the broad spatial expanse of the sports, culture, and tourism industry ecosystem possible. This management model based on a digital foundation holds the potential to improve, to a certain extent, the macro-allocation efficiency of cross-regional cultural tourism resources and optimize the daily operational efficacy and emergency response capabilities of large sports venues and natural ecological scenic spots [4]. Concurrently, the decentralized and data-traceable features of blockchain technology offer a novel technical aid in exploring solutions to trust mechanism construction and interest distribution dilemmas faced in cross-regional cooperation. By attempting to build a regional cultural tourism consortium blockchain based on smart contracts, it is promising to lower supervision costs while assisting in safeguarding the reasonable rights and interests of participating entities in cross-regional joint marketing and revenue distribution, thereby appropriately stimulating the collaborative cooperation willingness of local enterprises within the ecosystem.

Simultaneously, technological innovation continuously expands the physical and cognitive boundaries of experiential scenarios. The gradual application of digital technology on the demand side is constantly broadening consumption scenarios and tourists' experiential dimensions in sports, culture, and tourism integration. The successive implementation of technologies like Virtual Reality (VR) and Augmented Reality (AR) has somewhat alleviated the objective geographical and temporal limitations of traditional sports viewing and historical cultural experiences. This continuous technology-based innovation not only helps catalyze emerging composite formats with certain technological added value—such as cloud-based event observation and digital interactive intangible cultural heritage experiences—but also allows the unique ecological landscapes and ethnic cultural resources nestled deep in remote mountainous areas like northern Guangdong to be digitally presented across physical spaces onto the smart terminals of consumer groups in the Greater Bay Area. In essence, this explores the spatial leap and long-tail effect of the economic value of resources [5].

## **4.3. Objective Traction of Consumption Upgrading and Market Demand**

The evolutionary laws of market demand structures and the shifting of consumer preferences have always been crucial logical starting points and market testing standards influencing the evolutionary direction of industrial ecosystems.

From the perspective of consumption structure, the rise of experiential and health-oriented consumption is profoundly reshaping market orientations. With the increase in Chinese residents' income levels and a deepening understanding of life and health, mass consumption concepts are transitioning from a heavy focus on material satisfaction to equal emphasis on spiritual enrichment and physical and mental health. Some modern tourists, especially the young and middle-aged consumer groups occupying an important market share, are gradually no longer satisfied with traditional shallow sightseeing; instead, they are more inclined to pursue deep immersive experiences that provide physical participation, spiritual resonance, and ecological wellness functions. This new consumption trend, characterized by emotional attachment and composite features, forms an objective tractive force on the market end. It objectively prompts relevant cultural tourism and sports institutions on the supply side to gradually shift away from traditional solitary operational models,

actively seeking cross-industry and cross-regional cooperation, with the expectation of providing the market with comprehensive service solutions covering "sports activities + cultural exploration + ecological leisure." For instance, exploring the construction of a cross-regional industrial chain of "outdoor hiking + hot spring wellness + ethnic sports" in ecological regions like the Nanling surroundings is precisely a positive response to this market demand [6].

From the perspective of market mechanisms, capital flow and the survival of the fittest have exerted objective ecological regulatory functions. As the national tourism market matures and information circulation accelerates, consumers' appreciation capabilities regarding cultural tourism service quality and cultural connotations have steadily improved. In a relatively open and competitive market environment, elementary cultural tourism products lacking deep integration cores, suffering from severe homogenization, and requiring service quality improvements may face certain market pressures. The objective competition laws of the market economy will tend to guide society's high-quality capital, frontier technologies, and creative talent resources to moderately tilt toward cross-regional premium sports, culture, and tourism integrated projects that truly offer high-quality interactive experiences, contain profound historical and cultural heritage, and are well-managed. This endogenously generated screening force from the market constitutes a continuous drive propelling the provincial sports, culture, and tourism industry ecosystem toward a healthier state of evolution.

## **5. CROSS-REGIONAL RECONSTRUCTION PATH OF GUANGDONG'S SPORTS, CULTURE, AND TOURISM INDUSTRY ECOSYSTEM**

Facing the multiple realistic challenges currently present and conforming to the evolutionary laws of the relevant dynamic mechanisms, Guangdong—in its practice of steadily advancing the cross-regional co-construction of the sports, culture, and tourism industry ecosystem—should base its efforts on a long-term perspective. It should adopt spatial and institutional reconstruction strategies possessing a certain degree of systematicity and foresight, steadily advancing across core dimensions including cross-regional governance, infrastructure, industrial synergy, and brand building.

### **5.1. Reshape the Cross-Regional Collaborative Governance Mechanism and Perfect the Institutional Framework of the Ecosystem**

Attempting to gradually eliminate long-standing administrative division barriers and constructing new cross-regional governance mechanisms and institutional frameworks adaptable to the development needs of the industrial ecosystem are vital foundations for realizing the relatively free flow of various resource elements within the region.

Advancing the collaborative innovation of institutional mechanisms, exploring and establishing cross-regional overall coordination mechanisms is particularly critical. It is recommended that the provincial level take the lead, uniting the Pearl River Delta core area and relevant municipal governments in eastern, western, and northern Guangdong, to jointly explore the formation of a "Guangdong Provincial Sports, Culture, and Tourism Industry Cross-Regional Collaborative Development Coordination Mechanism" or a joint conference system with a macro-guiding nature. This mechanism should be responsible for holistically researching the medium- and long-term strategic planning of the provincial ecosystem, assisting in the preliminary demonstration of major cross-regional composite projects, and spearheading discussions on the alignment and implementation of cross-departmental support policies. Concurrently, for complex matters requiring a high degree of synergy—such as the planning of cross-administrative ecological tourism corridors and the joint hosting of cross-city boutique events—all parties should be guided to sign cross-regional cooperation memorandums with a certain degree of binding force, gradually clarifying the specific rights and responsibilities boundaries of local governments in planning compilation, project approval,

and fund matching, striving to reduce friction costs of cross-regional cooperation from an institutional and mechanical level.

Perfecting interest-sharing and ecological compensation mechanisms based on market principles guarantees the construction of long-term, mutually beneficial economic ties. The continuous deepening of cross-regional cooperation should be supported by scientific, reasonable, and relatively fair mechanisms for the distribution of economic interests. When advancing large-scale cross-regional cooperative sports, culture, and tourism projects, active references and explorations should be made regarding the application of innovative models like the "enclave economy" in modern cultural tourism services. By encouraging multiple cooperating parties to discuss jointly funding the establishment of cross-regional collaborative development and operation entities, exploring interest-sharing models combining equity cooperation and reasonable sharing of full-lifecycle project revenues, efforts should be made to ensure that all participating parties can obtain appropriate economic returns from the development of the ecosystem. On the other hand, steadily sound scientific and long-term cross-regional ecological protection transfer compensation mechanisms should be established. For mountainous and ecological development areas bearing crucial ecological conservation functions within the provincial sports, culture, and tourism industry ecosystem, provincial finances could consider further optimizing relevant transfer payments at an institutional level. Simultaneously, actively explore the establishment of market-based trading mechanisms wherein the benefiting core source-market governments and cultural tourism enterprises provide horizontal financial or industrial ecological compensation to ecological conservation areas, thereby stimulating long-term intrinsic enthusiasm in less developed regions for protecting ecological resources and developing high-quality green cultural tourism industries.

## **5.2. Advance the Interconnection of Regional Infrastructure to Promote the Global Flow of Production Factors**

The connection of physical facilities and the interoperability of underlying digital foundations are crucial supports for sustaining the smooth operation of the vast systemic sports, culture, and tourism industry ecosystem.

Overall planning of cross-regional transportation and public service networks and optimizing the "terminal micro-circulation" system in physical space are imperative. The strategy of integrated development of transportation and cultural tourism industries should continue to deepen. While steadily advancing the construction of trunk transportation networks connecting the core city clusters of the Greater Bay Area with the hinterlands of eastern, western, and northern Guangdong, special cultural tourism plans should focus heavily on the construction of transportation micro-circulation systems that can precisely connect core scenic spots, characteristic ethnic villages, and sports towns. For example, exploring the planning and construction of cross-city tourism scenic routes, bicycle off-road greenways, and comprehensive RV camping supply networks, striving to alleviate the transportation pain points restricting tourists' deep penetration and factor circulation. Meanwhile, gradually exploring the unification and upgrading of cross-regional tourism public service standard systems is essential. Within the scope of the ecosystem, explore implementing smart tourism guidance systems with relatively unified visual design languages and multilingual service functions; steadily advance the exploration of cross-city jointly dispatched tourist distribution center operating mechanisms and the construction of emergency medical rescue linkage networks covering the entire region, aiming to elevate tourists' connection experience and safety security level during long-distance deep cross-regional tours.

Building a relatively unified provincial sports, culture, and tourism digital resource-sharing cloud platform to construct a data foundation assisting the ecosystem's operation. Conforming to the epochal trend of the digital economy empowering regional coordinated development, it is suggested that relevant core provincial departments take the joint lead, relying on the construction foundation

of Guangdong's "Digital Government," to holistically explore the construction of a "Sports, Culture, and Tourism Industry Resource Big Data Collaborative Sharing Cloud Platform" [7]. This cloud platform should be dedicated to gradually alleviating the phenomenon of data isolation existing between departments and municipalities. By exploring the formulation of standard specifications for data aggregation and cleaning, efforts should be made to conduct moderate centralized integration and asset management of heterogeneous data, such as dispersed vacant venue resources, intangible cultural heritage image and text databases, and real-time scenic spot traffic flows across the province. Under the legal premises of absolutely ensuring national network data security and strictly protecting tourists' personal privacy information, formulate prudent data opening specifications. Orderly open public data interfaces, processed through de-identification, to market cultural tourism operating entities and scientific think tanks that meet relevant qualifications. Through the moderate flow and sharing of high-value data assets in a secure environment, provide underlying digital empowerment for cultural tourism enterprises to carry out precise R&D of composite products and scientific construction of cross-regional marketing systems.

### **5.3. Deepen the Internal Division of Labor and Collaboration within the Industry to Accurately Cultivate Diversified Composite Formats**

The continuous vitality of an industrial ecosystem depends largely on whether a pattern of differentiated development and industrial chain collaboration based on respective comparative advantages can be formed among its internal market entities and different regions.

Exploring differentiated development strategies based on regional comparative endowment advantages to construct a stepped industrial pattern of "R&D Incubation - Landing Experience". There are objectively significant differences in ecological resources, capital depth, and talent endowments among various regions within Guangdong Province. Therefore, when advancing industrial integration, the inertia of homogeneous extensive development should be gradually shifted. The nine core cities of the Pearl River Delta can fully leverage their comparative advantages in capital operations, cutting-edge technological R&D, and high-frequency international exchanges. Their industrial positioning could focus on developing capital- and technology-intensive higher-order formats, such as digital cultural tourism creative design, operational introduction of international commercial sports events, and high-end intelligent cultural tourism equipment manufacturing. Efforts should be made to cultivate them into an innovation hub driving the operation of the provincial sports, culture, and tourism ecosystem. In contrast, the vast regions of eastern, western, and northern Guangdong should clearheadedly recognize and base themselves on their superior natural ecological foundations and unique folk cultures. Their industrial layout can be explored with a focus tilting toward resource-intensive and environmentally friendly formats, such as ecological health wellness resort clusters, large-scale outdoor adventure sports bases, and authentic experiences of characteristic intangible cultural heritage. Through this macro-gradient division and spatial synergy based on comparative advantages, efforts should be made to form a virtuous regional industrial collaborative circulation pattern of "Greater Bay Area core drawing traffic + Eastern, Western, and Northern Guangdong hinterlands taking over" across the province.

Steadily advancing the cross-border extension and multi-dimensional penetration of sports, culture, and tourism industrial chains to cultivate "Sports, Culture, and Tourism +" composite formats with added value. On the one hand, actively encourage capable leading enterprises within the ecosystem to attempt to break through the profitability limitations of solitary traditional businesses via legal and compliant market-oriented means. For instance, fully relying on the unique ecological resources and topography of certain large natural scenic spots, moderately implanting sports health wellness and outdoor expansion projects with brand influence, and exploring innovative commercial closed loops where traditional ticket-sightseeing cultural tourism industries jump to high-value-added segments such as health management and sports training [8]. On the other hand, in the vast rural areas, deeply excavate and creatively revitalize local cultural resources, treating them as cultural elements

appropriately penetrating into the links of sports event organization and tourism leisure experiences. In the hinterlands where the rural revitalization strategy is deeply implemented, actively and appropriately explore promoting project models deeply integrating agriculture, culture, and tourism according to local conditions. Integrating traditional rural farming civilization, ethnic minority sports competitive activities, and modern leisure sightseeing agriculture organically to create composite experiential products bearing local imprints. This helps continuously extend the rural industrial chain and expand the comprehensive anti-risk capacity of grassroots industries [9].

#### **5.4. Shape a Comprehensive Brand IP Matrix to Steadily Enhance the Overall Cultural Soft Power of the Ecosystem**

Brands with high recognizability and cultural identity are embodiments of the core commercial value of an industrial ecosystem, and they also constitute important support for Guangdong's sports, culture, and tourism industries to participate in higher-level market competition domestically and internationally in the future.

Cultivating regional landmark brands utilizing international important events and ethnic festivals as opportunities. It is advisable to explore utilizing the strategic opportunity of Guangdong hosting international and national major sports events, such as the 15th National Games, from a long-term perspective. Visions should not merely be confined to the smooth hosting of events but should attempt to deeply excavate and refine the urban fighting spirit and the deep connotations of Lingnan culture embedded behind major events. Through exploring full-cycle comprehensive development of the event economy, transform them into regional super cultural tourism IP assets with prolonged market appeal. Simultaneously, systematically review and moderately integrate traditional folk festival activities across the province that possess distinct local characteristics and historical heritage. By introducing appropriate digital technology rendition means and visual packaging reshaping that conforms to modern aesthetics, explore cross-border integration planning and deep binding with modern extreme outdoor sports carnivals. Strive to explore and cultivate a matrix of landmark fusion festival brands that represent the profound cultural heritage of Guangdong and cater to modern international health consumption trends.

Strengthen the docking of cross-regional joint matrix marketing with Greater Bay Area international brands to build a cultural tourism communication cooperation network with a broad vision. Attempt to gradually alter the relatively scattered communication patterns of various municipalities across the province in outward tourism marketing promotion in the past. It is recommended to explore having relevant tourism authorities take the overall lead, integrating various originally scattered marketing media channel resources, and exploring the construction of a "digitally empowered, multi-level linked" provincial high-quality cultural tourism marketing matrix [10]. When facing major domestic source markets and overseas international markets, explore using grand brand images with high recognizability, such as "Vibrant Guangdong - Guangdong-Hong Kong-Macao Greater Bay Area," to conduct continuous centralized promotion, forming strong brand mental influence. In addition, comprehensively strengthen deep communication and rule integration between Guangdong's sports, culture, and tourism industry ecosystem and the existing international-level brand construction of the Guangdong-Hong Kong-Macao Greater Bay Area. In areas such as cultural tourism service quality evaluation, sports event organization norms, and tourism catering and accommodation quality certification systems, gradually explore standard soft interconnectivity with Hong Kong and Macao regions possessing international management experience; actively encourage provincial cultural tourism enterprises and sports companies to explore deep commercial cooperation and two-way brand licensing with well-known international cultural tourism groups in Hong Kong and Macao. Moderately leveraging the uniquely advantageous international exhibition platforms and global commercial operating networks of the Hong Kong and Macao regions, steadily propel the high-quality integrated products and characteristic services of Guangdong's sports, culture, and tourism industry ecosystem onto a broader stage.

## 6. CONCLUSION

In summary, during the historical process of deeply advancing the national regional coordinated development strategy, Guangdong Province, based on its provincial resource endowments, is steadily exploring the cross-regional co-construction and reconstruction of the sports, culture, and tourism industry ecosystem. To a certain extent, this is a strategic systemic engineering project profoundly involving the optimization of the province's macro-spatial economic geography pattern, the exploration of underlying cross-regional institutional mechanisms, and the rational layout of regional productive forces. Through qualitative academic speculation and theoretical deduction, this paper posits that building a sports, culture, and tourism industry ecosystem with characteristics of the Guangdong era inherently follows the underlying theoretical logic of resolving the contradiction of unbalanced regional development and actively responding to the provincial macro-spatial strategic layout. Its dynamic evolutionary process, meanwhile, advances spirally under the superimposed effects of multiple complex dynamic mechanisms: the external guiding thrust brought by macro policy and institutional innovation, the endogenous empowering traction provided by the comprehensive explosion of digital technology, and the objective traction formed by the upgrading of consumption structures to higher levels. Facing the phased realistic resistances objectively existing at present—such as the macro cross-regional collaborative governance system still needing refinement, the circulation of underlying core data elements facing challenges, and the internal industrial division and collaboration having room for deepening—Guangdong Province urgently needs to respond with a broader vision and a macro-strategic layout possessing certain foresight.

Looking ahead to future practical paths, it is advisable to unswervingly deepen beneficial explorations at the level of local administrative systems and fiscal/tax mechanisms in an effort to perfect the institutional network of cross-regional collaborative governance; systemically advance the seamless interconnection of hardcore physical transportation infrastructure and soft underlying digital cloud foundations to effectively assist the highly efficient, free flow of advanced production factors like capital, talent, and data; based on the extremely precious regional comparative advantages of all parts of the province, further deepen industrial gradient division to precisely cultivate modern composite formats with high added value; and continuously pour efforts into exploring the shaping of a comprehensive brand IP matrix with strong influence, so as to hope to construct an open, inclusive, collaboratively innovative, and resource-sharing advanced regional sports, culture, and tourism industry ecosystem from the underlying logic. Through the steady implementation of this series of targeted and practically operable spatial and institutional reconstruction paths, it will help Guangdong Province build relatively solid industrial advantages amidst the increasingly fierce modern high-end service industry competition pattern, thereby contributing enduring vitality and highly demonstrative industrial strength towards comprehensively realizing the high-quality, sustainable development of Guangdong Province's regional economy and society, and continuously enhancing the sense of gain and livelihood well-being of the people of the province and even the Greater Bay Area.

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- (2) Guangzhou City Philosophy and Social Science Development "14th Five-Year Plan" 2025 Regular Project (Jointly Established): "Innovative Research on the Collaborative Governance Mechanism for Sports Event Regulations in the Guangdong-Hong Kong-Macao Greater Bay Area—An Empirical Analysis Based on the Institutional Linkage of Major Events in Guangzhou, Hong Kong, and Macao" (Project No. 2025GZGJ126)

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