Research on the Multi-Stakeholder Collaborative Governance of the Sustainable Utilization of Large-Scale Basketball Venues After Competitions

Rui Guo*

Shandong University of Finance and Economics, Jinan City, Shandong Province, 250014, China
**Corresponding author: guoruisdufe@163.com*

Abstract: *Large-scale basketball venues, due to their highly specialized physical asset attributes, face challenges in sustainable utilization during the post-competition phase, including difficulties in functional conversion, high operational costs, and narrow market demand. The complexity of these challenges stems from the specificity of the assets and the differing value perceptions of multiple stakeholders. The traditional single-dominant management model struggles to address this systemic issue. This study aims to explore the theoretical logic and practical pathways of multi-stakeholder collaborative governance in solving this problem. The research first constructs a governance theory applicable to this context, analyzes the particularities and complexities of post-competition venue utilization, and the roles and functions of multiple stakeholders, while also expanding the theory of collaborative governance to fit this specific scenario. Furthermore, the paper delves into the interaction patterns among multiple stakeholders based on resource dependence, elucidates the structural characteristics and core operational mechanisms of a polycentric collaborative governance network, and demonstrates the shaping effects of formal and informal institutions on collaborative behavior. Finally, the study establishes a multi-dimensional framework for evaluating effectiveness, integrating both process and outcomes, identifies key obstacles that impact collaborative efficacy, and proposes pathways for optimizing the governance system centered on building dynamic capabilities. This research provides a systematic theoretical analytical framework for understanding and optimizing the post-competition governance of large-scale sports venues.*

Keywords: *Large-scale basketball venues; Post-competition utilization; Sustainability; Multiple stakeholders; Collaborative governance; Governance effectiveness*

Introduction

As iconic structures that host top-tier sports competitions and public cultural services, the sustainable utilization of large-scale basketball venues after competitions represents a global issue of significant economic value and social importance. The asset specificity of these venues, formed during the design and construction phase to meet specific event requirements, makes them highly susceptible to underutilization and financial losses once the event cycle concludes. The essence of this problem lies in the structural contradiction between highly concentrated specialized assets and the dispersed, diverse needs of society. Existing research predominantly approaches this issue from the technical perspective of operational management or spatial renovation. However, the sustainable utilization of venues is not merely an engineering or commercial operation problem; it is a governance issue involving multiple heterogeneous stakeholders, complex interest relationships, and dynamic environmental adaptation. Therefore, conducting a systematic investigation from the perspective of multi-stakeholder collaborative governance holds significant theoretical necessity and practical urgency. Its significance lies in transcending the limitations of traditional management thinking. By analyzing the intrinsic mechanisms of stakeholder interaction, network construction, and institutional shaping, this approach aims to provide a new analytical paradigm and pathway guidance for solving the collective action dilemma in post-competition venue utilization and for exploring governance models that achieve economic sustainability, functional diversification, and the integration of social value.

1. The Theoretical Construction of Governance for the Post-Competition Utilization of Large-Scale Basketball Venues

1.1 Analysis of the Particularities and Complexities of Post-Competition Venue Utilization

The post-competition utilization of large-scale basketball venues exhibits distinct particularities, with their roots lying in the highly specialized objectives of the venues' initial design and construction. The physical attributes of such venues, including super-capacity spectator seating, lighting and equipment systems meeting top-tier broadcasting requirements, and exclusive functional zones adhering to competition standards, present functional conversion challenges in the post-competition phase that are entirely different from those of conventional sports buildings. Their spatial form and facility configuration demonstrate characteristics of specific assets. This specificity creates a structural contradiction between their high operation and maintenance costs and the narrow market demand once the venues are removed from a specific event cycle, thereby giving rise to the risks of sunk assets and value lock-in[1].

This particularity further interweaves to form systemic complexity. Post-competition utilization involves not only the functional reshaping and technological adaptation of the physical space but is also embedded in a context composed of multiple dynamic factors. The volatility of market demand, the evolving expectations of socio-cultural functions, and the diversified perceptions of venue value among different stakeholders collectively shape a non-linear decision-making environment. Consequently, the sustainable utilization of venues becomes a dynamic adaptive process. Its complexity is manifested in the necessity to simultaneously address short-term operational pressures and long-term value maintenance, to reconcile the demands of professional sports competitions with public service functions, and to explore viable survival pathways under multiple constraints.

1.2 Definition of the Roles and Functions of Multiple Stakeholders in the Sustainable Utilization of Venues

Within the domain of post-competition sustainable utilization of venues, the acting subjects exhibit significant multi-heterogeneity. Based on their property rights relationships with the venue assets, the degree of resource investment, and their core interests, they can be categorized into two main types: direct acting subjects and derivative interest subjects. Direct acting subjects typically include asset holders, core operating institutions, and long-term anchor users. They directly bear the financial performance, physical maintenance, and primary operational responsibilities for the venue, and their decisions and actions have a decisive impact on the venue's state of existence. The functional core of these subjects lies in achieving the preservation and value regeneration of the venue assets through strategic planning and resource integration.

Derivative interest subjects, on the other hand, include surrounding commercial entities, community organizations, professional service institutions, and the broader audience. Although they do not directly control the venue assets, their activities are closely linked to the operational efficiency and functional positioning of the venue, and they derive value from the socio-economic spillover effects of the venue. The role of these subjects is primarily manifested in areas such as demand feedback, supplementary service provision, social network support, and the co-creation of value identification. The relationship among multiple stakeholders is not a simple parallel one; rather, they form an intricate interactive network based on resource dependence, value exchange, and risk sharing. The roles and functions of each stakeholder are continuously defined and reshaped within these interactions, collectively forming the foundation of the governance structure for venue utilization[2].

1.3 The Applicability Expansion of Collaborative Governance Theory in the Context of Post-Competition Venue Utilization

Collaborative governance theory provides a robust analytical framework for understanding how multiple stakeholders address the complexities of post-competition venue utilization. Traditional linear management models, centered on a single dominant entity, often prove inadequate when tackling venue utilization challenges characterized by high asset specificity and numerous stakeholders, frequently leading to decision-making deadlocks or resource misallocation. Collaborative governance emphasizes the establishment of sustained interaction and cooperative relationships among diverse stakeholders with heterogeneous resources, differing interests, and varied cognitive perspectives through formal or informal institutional arrangements. It aims to cultivate a collective action capability that transcends the

capacity of any single organization, thereby enabling stakeholders to address complex shared issues collectively.

Introducing collaborative governance theory into this context requires a contextual expansion of its core assumptions. The objective of collaboration in post-competition venue utilization is not merely to reach a consensus, but to construct a dynamic organizational mechanism capable of continuously adapting to uncertainty, effectively integrating dispersed resources, and creating synergistic value. This implies that the focus of collaborative governance needs to shift from static power allocation to the cultivation of interactive processes, learning mechanisms, and adaptive capacities. The key to theoretical expansion lies in exploring how, in the absence of an absolute authoritative entity, the design of rules, the construction of information-sharing platforms, and the cultivation of trust mechanisms can guide multiple stakeholders from a state of value competition or isolated action towards strategic complementarity and symbiotic evolution, thereby opening up viable governance pathways for the sustainable utilization of venues.

2. Mechanism Design for Multi-Stakeholder Collaborative Governance

2.1 Analysis of Resource Dependence and Interaction Patterns among Multiple Stakeholders

The process of post-competition sustainable utilization for large-scale basketball venues is essentially a continuous interaction among multiple heterogeneous stakeholders based on their interdependence on critical resources. These resources exhibit high levels of specificity and dispersion, encompassing various dimensions such as ownership of physical assets, financial capital, specialized operational knowledge, market channels, brand influence, and social legitimacy. It is difficult for any single stakeholder to independently control all the resources necessary for achieving the sustainable utilization of the venue, thereby creating a profound relationship of resource interdependence. This interdependence is not homogeneous; its structure is characterized by asymmetry. That is, there are differences among stakeholders in the scarcity, non-substitutability, and potential for power derivation of the resources they control, which directly shapes the fundamental dynamics and potential tensions in the interactions between them.

Based on this structure of resource interdependence, multiple patterns of interaction evolve among stakeholders. The main patterns can be summarized as resource-exchange interaction, information-sharing interaction, and joint decision-making interaction. Resource-exchange interaction manifests as direct interest concession and cooperation, such as the combination of operational rights with professional capabilities. Information-sharing interaction forms the foundation of collaboration, reducing environmental uncertainty by establishing channels for data and knowledge flow. Joint decision-making interaction involves collective deliberation on major developmental directions or key issues concerning the venue, serving as a marker of deepened collaborative governance. These interaction patterns are not fixed; rather, they dynamically shift among states of competition, negotiation, and collaboration in response to changes in the degree of resource dependence, levels of trust, and the external environment. Their evolutionary path directly impacts the effectiveness and stability of collaborative governance.

2.2 The Network Structure of Collaborative Governance and Its Operational Mechanisms

The collaborative governance relationships formed by multiple stakeholders around the post-competition utilization of venues present themselves, overall, as a polycentric and composite network structure. This network structure transcends the traditional binary framework of hierarchy or market. Its nodes are various autonomous stakeholders, and the connecting links are diverse ties established based on resource dependence, contractual relationships, or shared norms. The characteristics of this network structure are manifested in the heterogeneity of the nodes, the diversity of the connections, and the diffuseness of power distribution. Multiple active centers of action exist within the network, rather than a single absolute authority; centrality may shift depending on the issue area and resource endowments, which ensures the network's flexibility and resilience in addressing complex problems[3].

The operation of the collaborative governance network relies on a series of mutually supportive mechanisms. The core operational mechanisms include information transmission and knowledge integration mechanisms, interest coordination and risk-sharing mechanisms, and adaptive learning and feedback mechanisms. Information transmission and knowledge integration mechanisms ensure that

dispersed information and tacit knowledge can flow and integrate effectively within the network, providing a cognitive foundation for collective decision-making. Interest coordination and risk-sharing mechanisms address conflicts of interest and potential losses arising from cooperation through negotiation, compensation, or the establishment of joint funds, thereby maintaining the continuity of network cooperation. Adaptive learning and feedback mechanisms enable the network to draw lessons from internal interactions and changes in the external environment, dynamically adjusting action strategies and interaction rules, thus enhancing the entire governance system's capacity to cope with uncertainty. The combined effect of these mechanisms binds the diverse, loosely connected stakeholders into an organic whole capable of generating synergistic effects.

2.3 The Shaping Effect of Institutional Construction and Rule Systems on Collaborative Behavior

The effectiveness of collaborative governance is deeply rooted in a system of institutions and rules that are widely recognized and followed. Institutions are understood here as the stable arrangements and shared beliefs that govern relationships among stakeholders and define the rights and responsibilities of action. In the context of post-competition collaborative venue utilization, institutional construction manifests at two levels: first, formalized written rules, such as cooperation charters, operational agreements, and performance evaluation standards; second, informal norms, practices, and shared expectations, such as a culture of trust, professional ethics, and reputational mechanisms for cooperation. Formal rules provide a clear framework and baseline safeguards for collaborative behavior, reducing transaction costs and the risk of opportunism. Informal norms, meanwhile, fill the gaps that formal rules cannot cover, guiding stakeholders' conscious collaboration through social constraints and intrinsic motivation.

The rule system shapes collaborative behavior through three core pathways: expectation shaping, incentive orientation, and constraint definition. Clear rules establish stable expectations of behavior, enabling stakeholders to anticipate the actions of others and thus make long-term cooperative commitments. Incentive-based rules, such as revenue distribution plans based on collective performance, align individual rationality with the maximization of collective interests. Constraint-based rules clearly delineate behavioral boundaries, imposing costs on actions that harm collective collaboration. A well-crafted rule system can balance standardization and flexibility, preventing the collaborative network from disintegrating due to disorder while also avoiding the suppression of innovation and adaptability caused by rigid rules. Therefore, the evolution of institutional construction and the rule system is a pivotal process in transitioning collaborative governance from temporary cooperation to institutionalized and sustainable operation.

3. Effectiveness Evaluation and Optimization Pathways for the Collaborative Governance of Sustainable Venue Utilization

3.1 Evaluation Dimensions and Indicator Systems for Collaborative Governance Effectiveness

The effectiveness evaluation of collaborative governance needs to transcend a single economic output perspective and construct a multi-dimensional framework that integrates both process and outcome. The process dimension focuses on the quality and health of the collaborative action itself, with core evaluation elements including the breadth and depth of stakeholder participation, the adequacy of information sharing and communication, the inclusiveness and transparency of decision-making procedures, and the effectiveness of conflict mediation mechanisms. The outcome dimension focuses on the substantive impacts generated by collaborative action; its evaluation should encompass the financial stability of venue assets, the optimization level of facility utilization rates, the diversity and social acceptance of the services provided, and the regional vitality and formation of innovation networks stimulated by the venue as a socio-cultural node. These two dimensions are interrelated: a healthy collaborative process is the foundation for generating positive and sustainable outcomes, while feedback from the outcomes further shapes the evolution of the collaborative process[4].

Based on the aforementioned dimensions, a multi-level indicator system can be constructed. This system should consist of a core objective level, a key performance level, and a specific observation indicator level. The core objective level corresponds to the ultimate value of sustainable venue utilization, such as the preservation of asset value, the integration of social functions, and the minimization of ecological impact. The key performance level translates these objectives into

measurable governance outcomes, for example, the stability of the cooperation network, the innovativeness of resource integration, and the adaptability to market fluctuations. The specific observation indicator level provides operationalized measurement points, including but not limited to, the frequency and quality of contributions from stakeholders participating in meetings, the number of cross-organizational projects, the coverage rate of resource-sharing agreements, user satisfaction indices, and the proportion of revenue generated from non-competition events at the venue. The construction of this indicator system aims to provide a systematic, balanced, and traceable benchmark for evaluating the effectiveness of collaborative governance.

3.2 Identification of Key Obstacles Affecting the Effectiveness of Collaborative Governance

The realization of collaborative governance effectiveness is constrained by multiple structural obstacles. Cognitive and informational asymmetries constitute a fundamental obstacle. Due to differences in professional backgrounds, organizational goals, and interest demands, multiple stakeholders hold divergent perceptions of the challenges, opportunities, and priorities related to the sustainable utilization of venues. Concurrently, critical information concerning costs, market demand, and operational data is often fragmented and opaque. This information barrier impedes the establishment of a common knowledge base and shared mental models, leading to difficulties in collective decision-making or deviations from optimal pathways.

A deeper layer of obstacles originates from the governance structure and institutional supply. Even with the willingness to collaborate, a loosely structured network may fall into the predicament of "deliberating without deciding" or "deciding without acting" due to a lack of effective coordination cores and decision-implementation mechanisms. Conflicts of objectives and challenges in interest distribution frequently emerge, particularly when short-term operational pressures clash with long-term brand building, or when commercial profits conflict with public service values. In the absence of fair arbitration and compensation mechanisms, cooperative relationships can easily rupture. Furthermore, path dependence and organizational inertia represent significant obstacles. Existing operational models, ingrained thinking patterns, and departmental silos may inhibit the generation and adoption of innovative solutions, causing collaborative governance to become a mere formality without achieving deep-seated resource reorganization and model innovation.

3.3 Optimization Pathways for the Collaborative Governance System Based on Dynamic Capabilities

Enhancing the effectiveness of collaborative governance requires starting with the construction of systemic dynamic capabilities, the core of which lies in enabling the governance network to possess the continuous adaptability to perceive environmental changes, capture opportunities, and reconfigure resources and processes. The optimization pathway first points toward the formalization and deepening of learning mechanisms. This includes establishing regular cross-organizational review and evaluation procedures to systematically analyze successes and failures; creating knowledge management platforms to facilitate the codification, storage, and dissemination of tacit knowledge; and encouraging the implementation of experimental projects to provide low-risk testing spaces for innovative utilization solutions. Through institutionalized learning, the network can continuously update its cognitive frameworks and action strategies[5].

Secondly, the optimization pathway emphasizes the flexible design of the governance structure. This means the network needs to maintain a certain degree of openness, allowing new relevant stakeholders to be integrated in an orderly manner when necessary, in order to introduce fresh resources and perspectives. Simultaneously, modular task forces or project-based teams should be developed within the network, forming flexible and focused temporary collaborative units for specific issues. This enhances agility in addressing particular problems while maintaining the stability of the overall network. Finally, optimization relies on establishing a closed loop in the feedback mechanism. The results from continuous monitoring of effectiveness evaluation indicators should be used not only for performance reporting but also directly fed back into the revision of rules, the allocation of resources, and the adjustment of interaction processes. This forms a continuous cycle of "evaluation-learning-adjustment," thereby driving the collaborative governance system to evolve towards a higher level of adaptability and creativity[6].

Conclusion

Through a systematic analysis of the multi-stakeholder collaborative governance for the post-competition sustainable utilization of large-scale basketball venues, this study demonstrates the theoretical rationality and practical necessity of the collaborative governance model in addressing the challenges posed by venue asset specificity, stakeholder multiplicity, and environmental complexity. The research indicates that effective collaborative governance relies on a clear understanding of the resource dependence structure among stakeholders, the meticulous design of polycentric network operational mechanisms, and the continuous construction of formal and informal rule systems. The effectiveness of collaborative governance is not only reflected in the ultimate economic and social outcomes but is also embedded in an inclusive, transparent, and adaptive collaborative process. Future research can be deepened along several directions: first, to further explore the empowering role of information-sharing platforms and data coordination mechanisms on the dynamic capabilities of governance networks in the context of digital technology; second, to conduct in-depth analyses of the differences in informal norms and trust-building pathways in different cultural and social contexts and their impact on governance performance; and third, to continuously track and verify the actual effects of optimization pathways based on dynamic capabilities in long-term evolution, thereby continuously improving the theoretical system and practical toolkit for the post-competition sustainable governance of sports venues.

References

[1] Lin Xianpeng, et al. "Sustainable Development of Winter Olympic Legacy during the 15th Five-Year Plan Period: Research Based on the Post-Competition Development and Utilization of Beijing Winter Olympic Venues." Journal of Tianjin University of Sport, vol. 40, no. 06, 2025, pp. 631-638.

[2] Chen Xiaopei and Cao Qinghua. "Research on the Post-Competition Utilization Model of Large-Scale Sports Venues: From the Perspective of Urban Sustainable Development." Leisure Products and Technology, no. 23, 2025, pp. 41-43.

[3] Qiao Zichen. "Analysis of Public Management Strategies for the Post-Competition Sustainable Utilization of Large-Scale Sports Venues." Society and Public Welfare, no. 20, 2025, pp. 109-111.

[4] Zhang Qiang and Meng Xiangyang. "Difficulties and Pathways for the Post-Competition Sustainable Utilization of Large-Scale Sports Venues in China." Liaoning Sport Science and Technology, vol. 47, no. 04, 2025, pp. 36-41.

[5] Zeng Bosi and Zhang Yao. "Business Model Identification and Cultivation: An Analysis of Pathways for the Post-Competition Sustainable Utilization of Large-Scale Sports Venues." Journal of Physical Education, vol. 31, no. 05, 2024, pp. 37-43.

[6] Zhang Qiaolong. Research on the Post-Competition Utilization of Ice and Snow Venues of the 2022 Beijing Winter Olympics. 2023. Tianjin University of Sport, MA thesis.