

Construction and Application of Sports Towns Characterized by Sports Event Chains

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Abstract: The sports towns' outlooks are strictly restricted by their construction pattern. Different from traditional ones, sports towns characterized by sports event chains is the new and upgraded version. Their competitive advantage includes integration effect, synergy effect and brand effect, contributing to better utilize sports resources and social capital input in a comprehensive manner. To make full use of sports event chains during sports towns' construction, this paper tries to define and analyze sports event chain's definition, characteristics and function, summarizes its major structural patterns, puts forward some suggestions on implementing sports event chains as well as cites the example of Huangshan Modern Industrial Park to further illustrate the concept.

1. Introduction

With the urbanization and sports popularization, sports towns emerged. They are the important carrier to achieve economic transformation and structural escalation as well as sports industrialization. They also provide opportunities to develop sports leisure tourism^[1]. Over the past two years, our government has consecutively formulated a series of relevant development plans^[2,3] and special support programs^[4-6] to sports leisure towns. This clearly demonstrates the government supporting to construct sports towns from the national level, but also offers a strong policy support in such aspects as urbanization, promotion of sports leisure tourism and mass physical fitness activity as well as supply side structural reform etc.

The construction pattern, essential for sports towns' construction, also determines their future development outlook. Due to the existing differences in sports tradition, the status quo of sports resources and level of economic development, there are plenty of options for the construction pattern. One commonly used pattern^[7,8] is to construct a first-class sports town with one single sports event. However, this pattern suffers one serious flaw. The relevant sports facilities are inclined to be left idle throughout most time of the year and the event organizers' lacking of experience might lead to further problems of management and public acceptance. Therefore, in the construction of sports towns characterized by sports event chains, the single sports event are being replaced by multiple sports events.

The ideal combination of multiple events should be closely correlated. Events are supposed to be designed in the way that they can form an interlinked event chain. Obviously, this kind of sports town can help the comprehensive utilization of sports resources, but also help form the integration effect and brand effect as well to attract social capital to construct sports towns. To ensure sports events can come into full play during the construction of sports towns as well as the feasibility of the sports towns, this paper tries to explore the definition, basic patterns, and application principles of sports event chains. The case study of Huangshan Modern Industrial Park is taken for research purposes..

2. Definition, Characteristics and Function of the Sports Event Chain

2.1 Definition

Sports event chain refers to the chain-type association between different sports events in accordance with specific logical relation as well as the spatial and temporal distribution. Sports event chain vividly describes the complicated combination of multiple sports events. It externally reflects the combined content and organizing manner of the shift from a single event to multiple sports events. Through the interactive activities between the event participants and event audience, event venues, facilities and utilizing process of the facilities as well as the event organization process, the sports resources can be ultimately shared by all the involving parties..

2.2 Characteristics

To begin with, the sports event series embodies the complicated hierarchical relationships of different events. As the most outstanding representative, the top-rated sporting events play a vital role. All the other sporting events are organized and planned in accordance with their relations with the top-rated ones, therefore assisting and supplementing them to ensure the overall success of the whole chain.

What's more, the sports event chain can reflect the degree of association among different events. The more closely events are associated, the more intensely interlinked they appear to be, the more sports resources they can share, the lower the input output ratio is, and ultimately it's much easier to attract social capital for the construction of the sports town. To better explicate the degrees of connection between those sports event chains, the term *degree of association* is employed as follows:

$$r_{A,B} = \frac{\sum_{i=1}^n \left(\frac{S_{A,i} \cap S_{B,i}}{S_{A,i} + S_{B,i}} + \dots + \frac{S_{A,i} \cap S_{B,i}}{S_{A,i} + S_{B,i}} + \dots + \frac{S_{A,n} \cap S_{B,n}}{S_{A,n} + S_{B,n}} \right)}{n}$$

In the above mentioned equation, A and B stand for two events, $r_{(A,B)}$ means the degree of association between event A and event B, $S_{A,i}$ ($i=1, \dots, n$) and $S_{B,i}$ ($i=1, \dots, n$) stands for how the two events and i are interlinked (for instance by the event area, the number of event planners, the input capital and the total number of spectators, to name just a few.)

Thirdly, the sporting events chain can also show the utilization degree of sports resources. For any specific region or town, the sports resources can be utilized are known and hard to be changed. However, the sporting events chain can both improve the working efficiency of those resources and offer a much wider variety of opportunities for sports fans of different classes, therefore intensifying the integration of different ports resources.

Finally, the sporting event chain can give us some insight to find out public's reaction to those sports events. Different sports fans have different personal preferences for different sports events. Sports event chain is not the random combination of events. The events are combined in such a flexible way that it ultimately can meet the requirement of various sports fans. The wider coverage of the sports event chain, the better it can meet the requirement of more events.

2.3 Functions

Firstly, the sports event chain sets a definite path for sports town's development and construction. It also provides theoretical proof when deciding events' selection and cultivation. Through further utilizing current sports resources, the sports event chain is formed accordingly. The status quo of sports resources presuppose the general principles of the sports event chain. Once the implementation scheme is established, it should be interfered by anyone.

Secondly, because the event chain advocates resources sharing, it can help reduce the cost to construct sports towns. Through sharing the land for construction, sports facilities, manpower and

financial resources, the event chain can be accordingly extended and stretched, which further enhance the comprehensive utilization of those sports resources. In such a virtuous circle, the construction cost of events can be effectively reduced.

Thirdly, the sports event chain offers multiple events for investors to choose from, making it easier to raise social funds for the sports town construction. Since the initial phase of sports town construction is money-consuming, the government investment as well as huge social capital is both in need ^[7,9]. The sports event chain offers more options not only more for events variety but the investment scale as well. Besides, the sports event chain also helps to lower the events' input output ratio, contributing to attract the social capital.

Fourthly, the multiple events on sports event chain contributes to integration effect, synergy effect and brand effect. Since top-rated sports event has a competitive advantage and rather strong persuasive power for other events to follow, it can effectively gather related events altogether, particularly the event planners and sports culture. As for the synergy effect, different related events can make the most use of the event area and time arrangement. The sporting event organizers can also learn from each other the sports management experience. They can work together to launch extensive advertising campaign and promotional campaign as well as use the same working system. All the above mentioned benefits of the sports event chain vividly demonstrate its strong synergistic effect and therefore further contribute to the sports town's synergistic effect. Once top-rated sports events have gained its distinguishing feature, the brand effect begin to work. The rising brand popularity in turn promotes the public recognition of other related events, making them quicker to be known and accepted by the market and the sports fans.

Finally, the staggered development of related events are beneficial to the sustainable development of sports towns. Under the influence of market competition, technological progress, values and consumption behavior, sports products will show a certain life cycle ^[10]. Every sport will undergo a life-cycle from pre-planning to actual execution, popularity rises and falls eventually. The predicable fate can be remedied by the multiple events. Compared with sports town for one single sports event, the sports town characterized by sports event chain can make the best use of all the resources. When one event loses its popularity with the fans, new event can take its place, regenerating a new life-circle and achieving sustainable development of the sports town as a whole.

3. Classification

The divergent patterns of sports event chains based on the varied combinations of different sports events also reflect their underlying conceptions and compositions. Therefore through a comprehensive review, we can divide those event chains into different categories to primarily categorize all the patterns and further form new ones. Meanwhile, it can also significantly saves the sporting event organizers' time and labor to investigate and analyze the present event chains ^[11], providing valuable reference and inspiration when selecting the optimal chain for the sports town.

3.1 Linear Chain

Linear chain, as its name suggests, includes an assortment of multiple sports events of different categories and all the disparate sports events can be planned in the same venue. For those sports towns with first-class venues, different events can be planned and organized for a maximal utilization of the arena. For instance, a large-scale natatorium can be used for a wide range of sports events, such as swimming, diving, synchronized swimming, water polo, fin swimming, etc. Similarly, according to scale and condition of the basic facilities, a gymnasium might be a perfect venue to plan indoor soccer, tennis, volleyball, basketball table tennis, badminton, billiards, fencing, weightlifting, wrestling, judo, boxing, handball and so on.

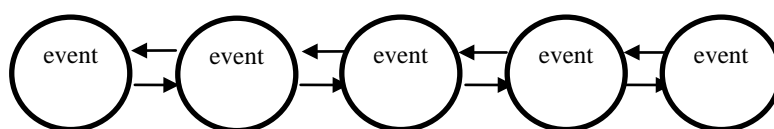


Fig. 1 Linear Chain

3.2 Circular Chain

Circular chain comprises sports events of the same category. The essential distinction between a linear chain and a circular chain lies in the fact that events staged in the latter pattern are different stages of the same event. This pattern is adopted when a particular event enjoys a high popularity among participants and spectators. In other words, mass appeal plays a pivotal role in such a pattern. For towns with certain events tradition and enjoys intense public popularity, the planners can first select one popular event, then complete a loop by organizing preliminary rounds. For instance, for a sports town with a tradition of dragon-boat racing, several rounds can be staged, such as the initial qualification trials, round phase, quarterfinal, semi-finals and finals.

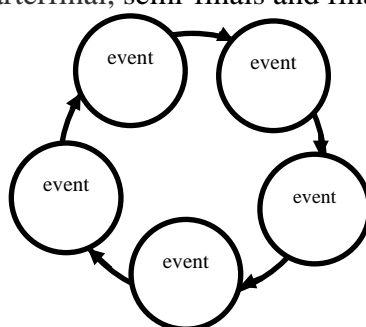


Fig. 2 Circular Chain

3.3 Wheel and Spoke Chain

Wheel and spoke chain is the combination of multiple events centering around a top-rated sports event. Those events are closely associated with the central event in terms of the venue, event planners, sports facilities and event service. Wheel and spoke chain utilizes the leading event to the utmost, remarkably enhancing the utilization of the leading event as well as the sports town's other resources. On the one hand, the wheel and spoke chain greatly hinges upon the leading event; on the other hand, it is restricted by its scale, standard and influence. Given that the leading event in most sports towns can hardly meet the requirements of this pattern, a comprehensive development outline should be formulated and a mid and long-term goal should be set for the gradual development and realization.

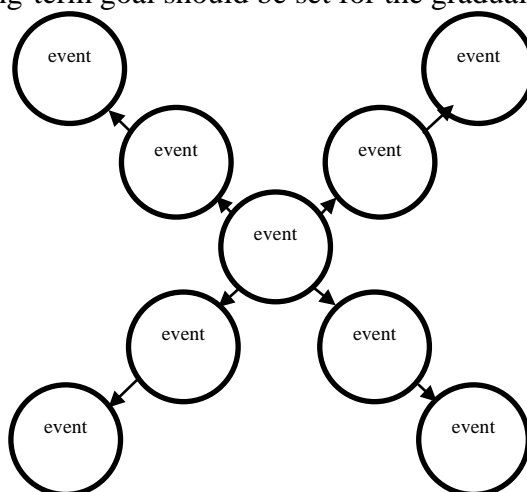


Fig. 3 Wheel and Spoke Chain

3.4 Super Chain

The super chain is an interwoven mixture of linear chain, circular chain and wheel and spoke chain. In this pattern, all the events of one sports town get connected in a network, combining both with the features of top-rated sports event as well as related events. Furthermore, it also facilitates the replacing and updating of top-rated sports events and contribute to the sustainable development of the whole sports town. The ultimate goal of the sports towns with a well developed super chain is to achieve high events correlation and sports resources utilization.

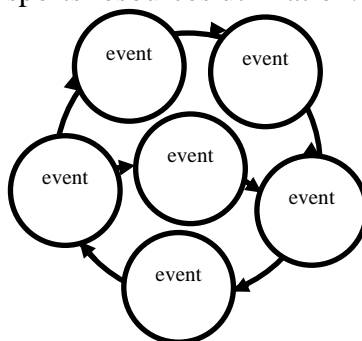


Fig. 4 Super Chain

4. Recommendations for Implementation

Implementing all the events in each sports event chain involves a multitude of aspects and people, and is thus prone to uncertainty of different factors^[12]. What needs to be noted is that diverse combinations of events will lead to different results. Therefore, relevant principles should be observed in the process of events in order to prevent potential risks and ensure that the sports towns achieve the expected goal of construction. Based on the experience of hosting major sports events, this paper analyzes the potential risk sources and influencing factors during implementing those sports events, and puts forward the following suggestions to address the common problems for reference purposes.

4.1 Minimizing the Potential Risks

The sports events organizing is restricted to many natural and social factors, for instance, climate, personnel, funds, venues, equipment, traffic and many others. Any changes in single or multiple factors will incur unexpected and irreversible results, which pose potential risks to the events^[13,14]. Accordingly, a complete and sound mechanism of risk mitigation is supposed to be established.

4.2 Overall Time and Space Planning

Compared with sports towns for one single sports event, those towns for sports event chain should also take into account the space arrangement and time coordination of relevant sports events. A successful space planning can help settle the potential time clashes between different sports events and further lower the restrictions on time requirement. For instance, organize indoor sports events when the weather condition is not suitable for outdoor ones, thus making the most of the time planning of the sports town.,

4.3 Advocate Green Sports, Preserve the Ecology

As one of the human activities, sports events, especially outdoor sports events, are bound to exert negative impacts on the ecology of the event area. UNEP points out that the negative effects of sports events on the natural environment includes the detriment of the fragile ecosystem and soil, the consumption of non-renewable resources (e.g. fuel and metals) and natural resources, the emission of greenhouse gases, the garbage, noise and light pollution produced by the spectators and the soil erosion caused by the construction process. Therefore, when it comes to planning sports event chain for sports towns, the idea of green sports should be advocated and the awareness of ecological

protection should be strengthened to avoid environmental pollution and destruction.

4.4 Keep Market Oriented and Maintain Sustainable Development

Sports industry, having become an industrialized sports economy in developed countries or even the world as a whole, is boosting economic growth under the guidance of sports market. The planning of sports event chain in sports towns should be market oriented and the selection of related sports events and sports event chain should be made in accordance with market mechanism, which will be beneficial for attracting social fund to construct the sports towns. Therefore the market exit mechanism is introduced for sports events which fail to meet the market's requirement, thus achieving sustainable development of sports towns.

5. A Case Study of Huangshan Modern Industrial Park

5.1 Survey of Huangshan Modern Industrial Park

Huangshan Modern Industrial Park is a provincial economic zone approved by Anhui provincial government. Located in Tunxi district Huangshan city, it covers a planning area of 34.29 square kilometers, 11.8 square kilometers of which are reserved for building area. Currently more than 150 cultural tourism enterprises of various kinds have gathered together, initially forming an industrial and supply chain

covering the upstream and downstream of the cultural tourism industry. It has been successfully selected the second batch of development base for strategic emerging industries in Anhui. In accordance with the overall planning of this park, the ultimate goal is to build a pivotal cultural tourism zone with smart tourism and culturally creative service being the core, which will take the lead in Anhui province and maintain highly competitive nationwide.

5.2 Status Quo of the Park's Sports Resources

Huangshan city enjoys rich natural and cultural tourism resources with high quality and distinctive features. It's the perfect event area for outdoor sports. The park's current sports resources including Songbai Golf Club, Taoye Sports, Outdoor Sports Base, Zhiway Education has successfully held the 2017 FGT Tournament. Other outdoor sports clubs like Free House in nearby scenic spots, and sports events like triathlon and mountain biking held in such areas are also gaining increasing popularity.

5.3 Sports Event Chain Pattern

The park's sports resources which can be used to construct the sports event chain are as follows: (1) top-rated sports event: golf events; (2) administrative organizers and planners for outdoor sports events; (3) outdoor sports fans; (4) professional lawn maintenance personnel. According to the resources mentioned above, the wheel and spoke chain (figure 5) can be selected for the park. That is, with golf events as the core and the golf course as the related content, tourism and athletic sports events which are related with grassland, such as lawn tennis, lawn gate ball, field hockey, lawn flying disc and lawn football are chosen; a mountain bike track is built around the golf course both for mass cycling races and for athletic cycling races; in view of the fact that the golf course is not frequently used in winter, an artificial skiing field is built for tourism and athletic ski races; and considering that outdoor sports have been carried out well in Huangshan city, outdoor sports events can be organized by taking full advantage of the high-level professional skills of the administrative staff and the large number of outdoor sports enthusiasts.

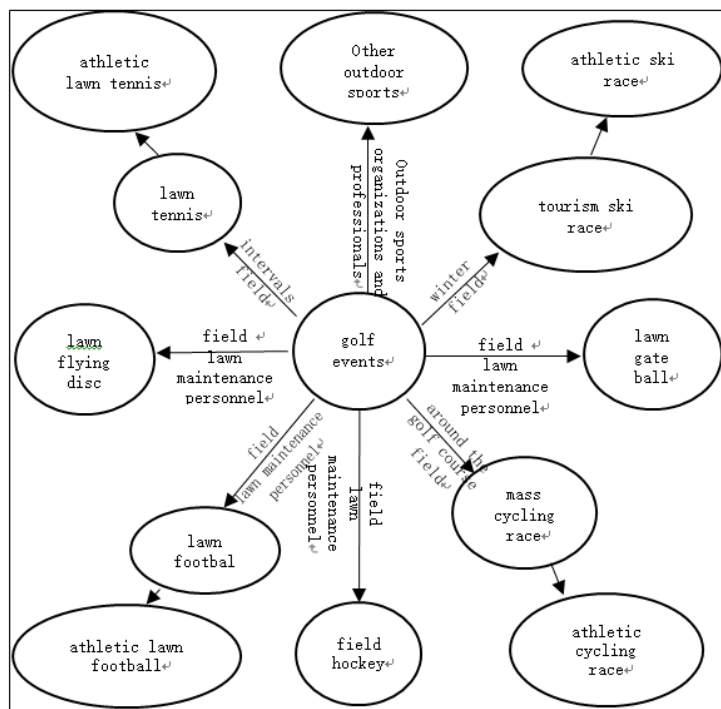


Fig.5 Planning Scheme for Huangshan Modern Industrial Park

6. Summary

Sports event chain has become the ultimate trend for the development of sports towns, which can in turn help the formation of brand effect and scale effect of the sports towns and is an important way to maintain the sustainable development of sports towns. In the construction of sports event chain, the existing sports resources should be fully exploited, related sports events should be carefully chosen and importance should be attached to risk prevention and environmental protection. In addition, we should be fully aware that the construction of sports event chain is a long-term systematic project which needs a mid-term and long-term planning. To ensure the continuity and stability of policies, we also need to gradually develop related sports events and constantly improve the construction of sports towns.

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