The building of the umbrella model for promoting the sports humanities construction and the sports industry development

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ABSTRACT

As an important signal reflecting the conditions of the regional economy, the sports industry, especially the regional sports industry, has been supported by a new development model called “the umbrella model”, in which cities have become the new foundation for the regional sports industry’s development. Take Liaoning Province as an example, its satisfactory economy and its excellent humanity environment all provide the necessary support to the building of the umbrella model for promoting the sports industry, making the plan and development of Liaoning’s sports and sports industry coordinated, adjustable and enable to accelerate the course of history. This is also the basic performance of the development of the sports humanity and the sports industry among cities, giving a strong support to forming the new situation of sports in a new period.

KEYWORDS

Sports humanity; Sports industry; Umbrella model; Unbalanced coordinative development.
INTRODUCTION

The development of sports accelerates the improvement of the national sports humanistic spirit. The economic construction is the dominant force to our sports’ development, and the rapid development of the sports industry is the most important part of accelerating the advancement of sports. This paper, by taking the sports humanistic construction and the sports development in Liaoning province as an example, researches the sports cause and the sports humanistic construction in the process of our sports industry’s development and actively explores the building of the “umbrella model”.

As everyone knows, Liaoning province is the old northeastern industrial base of China, so all its cities’ economic growth changes from slowness to rapidness, and their economic capabilities also become strong from being weak. With the constant improvement of the system of socialist economy with Chinese characteristics, Liaoning’s sports cause also steps onto the socialist road with Chinese characteristics. The development of Liaoning’s sports industry has shown us that after experiencing several difficulties Liaoning finally built its sports industry and made it realize leap-forward development, changing it from being weak to strong. Based on the current rapid development of the sports industry, we can see from several aspects that it still accelerates its development speed. In the sales of sports lottery, Liaoning ranks second nationally after Guangdong province. Evaluating from holding sports events, many sports events are held by cities of Liaoning, proving a wide platform for the personnel exchanges. With the rapid growth of Liaoning’s economy, the sports industry develops vigorously and stadiums and sports facilities in Liaoning have been improved to reach the national advanced level. This also promotes the high-speed development of Liaoning’s sports product manufacture and sale industry, which now has gratifyingly covered everywhere in Liaoning. Although parts of Liaoning’s sports industry has reached the national advanced level, how to meet the increasing need for the sports culture of most people is still a difficult waiting us to conquer. The question that in which way of adjusting and improving we make the partial and the whole development coordinated is still a urgent one needing us to think and answer. Not only building a theoretical model matching the Liaoning sports industry’s characteristics and meeting the need for rapid development but also analyzing the social and cultural conditions supporting the construction of the model can provide a theoretical support with practical meaning for the rapid development of Liaoning’s sports industry.

THE PROCESS OF BUILDING A “UMBRELLA MODEL” FOR THE RAPID DEVELOPMENT OF LIAONING’S SPORTS INDUSTRY

The cluster development form shaped by Liaoning’s vigorous development promote the sports industry

Indicators of economic development is highly consistent with the sports industry’ development speed

After experiencing ups and downs in the nearly past 40 years, Liaoning’s sports are characterized era representatives and have formed the sports industry chain and system, laying a solid foundation for the sports’ vigorous development. The soaring development of the sports industry in 14 cities of Liaoning supports the sports’ flourishing development.(as shown in Figure 1).

Liaoning’s Sports Industry Survey Report has fully shown that in the Liaoning sports industry two cities of Shenyang, Dalian account for 48.4% of Liaoning sports industry’s added value and the three cities of Shenyang, Dalian, Anshan account for 60.9% of Liaoning gross production, but Panjin and other small cities only share about 15%. The figures above fully embody the important role of economically advanced cities in expanding the sports industry scale and in providing strong economic support for its vigorous development. In terms of sports industry growth, except five cities of Liaoyang, Fuxin and others, there are nine cities, whose growth speed are more flat and less volatile but all exceed
Liaoning’s average speed. Among these cities Hu Ludao and Chaoyang are famous for their grain production and their rapid economic growth has provided sufficient power for the development of their sports industry, so these cities’ sports industries develop more rapidly than others.

![Figure 1: The city supporting system of Liaoning’s sports industry’s rapid development](image)

In terms of the economic development balance, GNP includes the sports industry’s added value. Compared with other cities the sports industry added value of cities in Liaoning province is proportional. The sports industry added value in Shenyang, Dalian and Anshan such economically advanced cities increase gradually, laying a solid foundation for the good and rapid development of the sports industry. But in economically un-advanced cities such as Fuxin and Tieling the sports industry added value decrease gradually (shown in Figure 2 and Figure 3).

![Figure 2: The proportion of the sports industry added value in 14 cities of Liaoning province](image)

**Liaoning sports industry core growth area and the formation of its industrial construction**

14 cities in Liaoning province, whose sports industry develop well, have gradually formed the core industry area with their own characteristics, such as Shenyang in the north, Dalian in the South, Benxi in the east and Jinzhou in the west. Among these six cities, Shenyang as the core city (shown in Figure 4) has built the business center circle around other five cities.
Different cities have their own characteristics in the formation of their sports industry and focus on different development directions. In the process of their growth it will involve in such industries as sports training, sports product manufacture and sports goods wholesale and retail[2]. The development of relative industries meets the need of sports economy for a rapid growth, and at the same time provides advantages for the increasing improvement of the inter relationship between regional sports industries. In this way, the development between individuals and the whole industry can cover Liaoning province, further accelerating the high speed of the sports’ development.

To some extent we can use spatial thinking to analyze the sports industry’s development. Liaoning sports industry’s growth structure and pattern are characterized by the natures of decentralization and some relative intangible characteristics. The city network connected with several city nodes cover the whole Liaoning province, making it possible for Liaoning sports industry’s development to find obvious support point and to get “certain representativeness”.(shown in Figure 5 below)

The positive influence of the “umbrella” shape and structure on Liaoning sports industry’s development
“Umbrella”, as our daily use, is familiar to us. While in this paper it is endowed with new connotation. The fully opening of an umbrella can protect us from rain and sunshine. In terms of its shape and loading features 14 cities of Liaoning province as the different support points jointly give support to the rapid development of Liaoning’s sports industry. And it also hints that there is possibly not only one growth pole but several poles and that the umbrella rib and its curve represent the radioactive and leaching effect of growth pole cities[^3]; The umbrella fabric symbolizes social conditions, basic humanities and economic theories that connect with and integrate in the rapid development of Liaoning’s sports industry and other relative industries (shown in TABLE 1 below).

![Figure 5: The central cities' radiation and pushing effect on the sports industry's development](image)

**TABLE 1: The comparison of the umbrella structure’s practical meaning and its relative economic meaning**

<table>
<thead>
<tr>
<th>structure name</th>
<th>real life meaning</th>
<th>social extension and economic theory symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>umbrella stick and umbrella tip</td>
<td>umbrella core and supporting body</td>
<td>Liaoning sports industry overall situation, forecast and symbol the rapid development and the development pole</td>
</tr>
<tr>
<td>umbrella rib</td>
<td>support and link the umbrella fabric</td>
<td>cities of Liaoning province, radiation symbolism</td>
</tr>
<tr>
<td>end of umbrella rib</td>
<td>rainwater drained channels</td>
<td>radiation and the leaching effect</td>
</tr>
<tr>
<td>umbrella curve</td>
<td>link and support the umbrella fabric, buffer the rain hit, rain drops slowly</td>
<td>tortuous development of Liaoning sports industry</td>
</tr>
<tr>
<td>umbrella fabric</td>
<td>buffer the rain hit, shelter from rain and storm</td>
<td>integration, connection and mutual influence of all causes, resist the market crisis</td>
</tr>
<tr>
<td>umbrella handle</td>
<td>fixed armrests</td>
<td>fixed and supporting conditions and the supporting system</td>
</tr>
</tbody>
</table>

### The establishment of the “umbrella” model

The datum above has fully proven that Liaoning sports industry is still in a high-speed development period. The process of the sports industry’s development is crucial to the sports cause. And its development involves in some spatial development thinking. In terms of space development, pushed by two core cities (Shenyang and Dalian), the trend of cities developing in group is gradually formed with four central cities (Shenyang, Dalian, Anshan, Jinzhou) as the four poles, finally making Liaoning’ sports cause enter a comprehensive development with full speed and forming a sustainable development cycle. In the meanwhile, by playing the radiative and leaching effect of central cities as development poles, the second and third covering can be finished, in the next step the asymmetric and sustainable development model can be built in the process of Liaoning’s ports industry rapid growth (shown in Figure 6).

### Social and economic growth is the material basis and condition of building the umbrella model of Liaoning’ sports development

The datum of past five years has clearly shown that Liaoning’s GNP is rising perpendicularly and its average annual growth has increased 13.12%. All these obvious increases can be reflected by people’s living standard which has fundamental changes. This is the foundation of sports’ sustainable...
development and the precondition of the sports humanity construction. The datum in the report on Liaoning government work of 2001-2007 has shown us that the disposable income of urban citizens has been triple from 2001 to 2007.

![Figure 6: The umbrella model of Liaoning's sports industry development and the central city coverage](image)

The net income per capita of rural citizens has been double between 2001 and 2008. According to Engel Coefficient, 40% to 50% means that living standard reaches the well-off level, 30% to 40% the rich level and lower 30% the affluent level. Based on the introduction above we can see that Liaoning’s urban and rural citizens are all in the well-off level and Liaoning has reached the goal of rejuvenating the province and enriching the people (shown in TABLE 2 below). With the rapid development of society and times, urban and rural citizens’ average income has constantly increased, making a big change of people’s living standard and meeting the need of individuals for this age. And in this process, the sports industry gradually advances in the direction of sports culture and sports leisure, changing people’ sports consumption awareness which lays a solid material foundation for the continuous development of the sports cause.

### TABLE 2: 2001-2007 Liaoning’s main economic statistics

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP (one hundred million yuan)</th>
<th>urban and rural per capita disposable income (yuan)</th>
<th>urban and rural citizens’ Engel coefficient (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>5033</td>
<td>5797.0 / 2557.9</td>
<td>39.7 / 45.6</td>
</tr>
<tr>
<td>2002</td>
<td>5452</td>
<td>6524.6 / 2751.3</td>
<td>38.8 / 45.0</td>
</tr>
<tr>
<td>2003</td>
<td>6002</td>
<td>7240.6 / 2934.2</td>
<td>39.4 / 43.2</td>
</tr>
<tr>
<td>2004</td>
<td>6872.7</td>
<td>8007.6 / 3307.1</td>
<td>40.4 / 46.4</td>
</tr>
<tr>
<td>2005</td>
<td>8005</td>
<td>9107.6 / 3690.2</td>
<td>38.8 / 41.6</td>
</tr>
<tr>
<td>2006</td>
<td>9046</td>
<td>10369.6 / 4090.4</td>
<td>38.8 / 41.2</td>
</tr>
<tr>
<td>2007</td>
<td>11021.73</td>
<td>12300.4 / 4773.4</td>
<td>37.8 / 39.6</td>
</tr>
</tbody>
</table>

**The influence coefficient is an important measurement of the sports development**

The influence coefficient, reflecting the relationship between the sports industry and other industries in a certain area, fully describes the necessary connection between industries relative to the sports industry and provides a powerful basis for the development of the sports industry. It mainly includes three aspects of the industry construct like the industry, the industrial influence coefficient and the response coefficient. The industrial structure likeness fully reflects the likeness between the sports industries in different regions. Higher the number is higher is the likeness between different sports industrial structures. Bigger the number is larger the influence of relative industries on the social development. So it can inspire the wide need of the whole society and further make a positive effect on the sports’ development. The influence coefficient’s computational formula is below:
\[ F_j = \frac{\sum_{i=1}^{n} b_{ij} / (1 / n \sum_{i=1}^{n} \sum_{j=1}^{n} b_{ij})}{n} \]

From the above formulation we can make such a conclusion that the higher the influence coefficient is, the larger the sports product consumption is, pushing the rapid growth of the national economy and accelerating the speed of the sports’s development. From a certain prospective, the gradual increasing of the influence coefficient illustrates the continuous growth of the sports industry’s products and services, which makes relative industries increase in the same pace. It plays an important role in pushing the rapid development of relative industries and also provides strong support for the coordinated development of other industries.\[5\] The industrial response coefficient shows that the influence of every economic sector’s consumption on a certain industry’s sales. The higher the consumption coefficient is, the higher the sales of a certain industry’s products and services are. The computation formulation is below:

\[ E_j = \frac{\sum_{i=1}^{n} b_{ij} / (1 / n \sum_{i=1}^{n} \sum_{j=1}^{n} b_{ij})}{n} (i, j = 1, 2, 3..., n) \]

The continuous increasing of people’s living standard makes a positive effect on industries relative to sports. Based on the demand of sport products and the increase of the sports services, we can see that there is an internal connection among three factors. This also means that the constant expansion of the sports industry has a big effect on the flourishing of the sports industry. From the microeconomic perspective, the sports industry’s growth scape mainly includes its gross production, the number of people employed and the total enterprises. The higher the gross production of the regional sports industry is, the larger the number of enterprises and employers is, the stronger the competitiveness and the closer the cooperation between regional sports industries. By this way the situation of driving each other can be formed. From the micro development of the sports economy, the sports industry development mainly includes the sports expenses’ proportion of total spending, the employers in the sports industry’s proportion of total employers in all industries and the output increased’s proportion of the total output increased. When these proportions become larger, it means that the sports industry grows more mature, so its influence on the development of other industries is more efficient and its contribution to the national economic growth is larger. By this way the sports cause can win more opportunities for its own development. The constant expansion of its relative ranges play a role in improving people’s understanding of sports and also provide a strong support for the sustainable development of the sports cause.

**THE REGIONAL ECONOMIC THEORY AND SOCIAL HUMANITY CONDITIONS SPORTING THE “UMBRELLA” MODEL OF LIAONING SPORTS INDUSTRY’S RAPID DEVELOPMENT**

The development pole theory puts forward new theory requires of the regional economic rapid growth

In the past 30 years of Liaoning sports industry’ development, it has gradually formed the city colony with the center of Shenyang and Dalian, being pushed by other cities. This development trend has certain “representativeness” and highlights Liaoning sports cause’s “unbalance”\[6\]. But this characteristic is united with the regional economic development and in line with the city development theory. The regional economic unbalanced development theory, based on Liaoning sports industry’ current situation and the social need, and practicing the principle of keeping the same pace with the era development, provides sufficient theoretical support for the scientific construction of Liaoning sports industry’s umbrella model. Meanwhile, the development pole theory provided by the regional economic theory shows us that “its own development can promote the neighborhoods’ growth and drive the common advance.” It also gives the theory support to the Liaoning sports industry’s “umbrella” model.
Now some central cities of the sports industry’s development such as Shenyang, Dalian, Anshan and Jinzhou, which are treated as the development poles, has an obvious leaching influence on the expansion of neighbor cities, so that pushing the comprehensive development of Liaoning’s sports industry.

The flourish of competitive sports culture is the propellant of Liaoning sports industry’s rapid development umbrella model

By the end of 2009, people from Liaoning have broken the world record for 280 times and won 605 gold medal, 221 silver medal and 186 bronze medal in Olympic Games, the World Cup for a certain sport, the World Championship for a certain sport. Compared with other provinces’ achievements, Liaoning’s rank top in different period. In the long process of the competitive sports’ development, the culture of high-end sports undertaking and sports celebrity has taken shape, whose influence on the social and economic development has become more and more obvious and which shows its unique role in promoting the sports industry’ rapid growth\[7\].

Liaoning sports culture cause’s positive influence

The city centralization of sports facilities is the basic platform of the sports industry rapid development’s umbrella model

Since Liaoning province applies for holding the 12th national games, the construction with more than 35 billion RMB of the key sports gyms such as the Liaoning sports training center, the Shengyang national Olympic sports center and the Dalian sports center has been conducted. Moreover, in recent years Liaoning invest 60 percent of the lottery accumulation fund, creating a good social environment for the sports favorable development.

The change of urban and rural citizens’ consumption view provides a wide market for the umbrella model of Liaoning sports industry’s rapid development

Date back to the period before the reform and opening up, Liaoning province, as the major heavy industrial production province in China, has a larger proportion of state-owned heavy industrial enterprises and its mass sports has formed a certain scale. While in the 30 years of the reform and opening up Liaoning successively won the call of “soccer city, Town for anthelices, basketball city and table tennis city”, laying a solid foundation for the rapid development of the urban and rural sports industry. With the continuous increasing of urban and rural citizens’ living standard, their sports consumption view has experienced the radical change: today’s Liaoning sports gradually turn to the high consumption projects such as massification, outdoor and equalization. It undoubtedly shows that people is the core of Liaoning sports’ development and it also provide an efficient material basis for the new way to construct the sports humanities and the new model, laying a solid foundation for building the umbrella model of city sports and sports humanities’ construction.

CONCLUSION

Building the umbrella model for sports humanity construction and for the sports development can efficiently avoid the bad competition between different cities’ sports industries. The example of building the umbrella model for Liaoning sports industry’s development and for the sports humanity construction has shown us that the umbrella model is scientific and makes a positive effect on the coordination, adjustment and unification of all factors in the process of sports’ development, enabling our sports industry to realize the goal of “leaping development”. In terms of the construction of the “umbrella” model, outstanding the major state of the social and economic theory has a certain era significance in expanding our sports cause’s own way to development.

REFERENCES


