

Analysis and Optimization Countermeasures on the Market Structure of Chinese Sports Industry

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Abstract This paper analyses the Chinese sports industry's market scale, market concentration rate, product differentiation and barriers to entry and the conclusion shows that the organization of Chinese sports industry is still in the early stage of development, and most of sports enterprises are regional characteristics, small non-economic and industrial scale. The paper also regards that the Chinese sports industry is of high risk, high return, and high barriers to entry. Finally, the paper has discussed the target mode of market structure of monopolistic competition in sports industry, and proposed the relevant countermeasures for optimizing the market structure of sports industry.

Key words Sports industry; Market structure; Countermeasures

1 Introduction

The modern world has witnessed rapid development of the sports industry which has become the new growth pole of national economy; particularly since mid and late 1990s, the prosperity of the sports industry has become a sharp contrast to the obvious deceleration of global economic growth and the deteriorating economic situations of some industries. At present, the annual gross output value of the global sports industry reaches 400 billion US Dollars and maintains more than 20% annual growth rate. In our country, the sports industry, although just in its starting stage, also experienced apparently rapid development in recent years. Along with continuously improved socialist market economic system, the sports system is changing from the planning system to the market system, so the sport industry's industrialization and marketization are increased; the sphere of the industry is continuously widened; the development scale is gradually augmented; and its functions and influence in the national economy are enhanced. As a new industry, the sports industry, on one hand, brings about the vitality for development of the whole sports undertakings, and on the other hand, displays its great business opportunities, which will certainly urge the rapid growth of our national economy. And this also encourages many scholars to research the sports undertakings from different angles. Their research achievements mainly include: Chen Huiming's "Current Situation Analysis and Countermeasure Research on Input and Output Efficiency of Chinese Sports Undertakings", which proposed the countermeasures and the suggestions, including rationally allocating resources of sports to improve utilization rates, establishing the scientific priorities of sports investment options, speeding up the innovations in sports, reforming the sports management system, and altering the functions of the government; Zhu He's "Input and Output Efficiency and Countermeasures for Funds of 7th National Games in Zhejiang Province", which focused on the research of the funds' input and output efficiency; Wang Yue's "Benefits Prognostication and Operation of Sports Events", which discussed the fundamental principles monitoring the capital flow in different economic fields of the sports events through the method of input and output. There however is no paper to analyze the market structure of Chinese sports industry's organization. Therefore, how to macro manage our sports industry, how to effectively guide our sports industry to develop healthily and in orderly fashion, how to survive and make improvement in the market with furious competition are the subjects we must study up on. To solve those problems, we have to have comprehensive knowledge and understanding about the market structure of our sports industry.

2 Main Analyzing Indicators of Market Structure

The factors deciding the market structures mainly include market concentration rate, product differentiation degree, and barriers to entry. By integrating the analyses on concentration rate, product differentiation and barriers to entry, the fundamental characteristics of market structure can be generally presented. According to the features of those 3 factors in different markets, Ms. Robinson classified the market structures to 4 basic types: perfect competition, perfect monopolization, oligopoly and monopolistic competition.

2.1 Market concentration rate

The market concentration rate is an indicator measuring the distribution of firms' market shares in a market (or industry), and it's closely related to the formation of monopolistic force in the market. The indicators regularly used for measuring the market concentration rates include the absolute concentration rate—industrial concentration rate (CR), relative concentration rate—Lorenz curve and Gini coefficient, and the indicators, such as Herfindahl—Hirshman index and Rosenbluth Index, trying to reflect the concentration rate through single index. This paper mainly uses the absolute concentration rate to measure the market concentration rate of sports products. The market's absolute concentration rate, also called CR_n index, hereupon represents the sports market's monopolization and concentration rate, and it's the share of the top n (the value of n depends on the demand of calculation, generally, n=4 or 8) largest-scale sports enterprises' relevant values (such as assets, number of employees, output, sales volume, and increase value) in the whole sports market. And its calculation formula is:

$$CR_n = \frac{\sum_{i=1}^n X_i}{\sum_{i=1}^N X_i} \quad (1)$$

2.2 Product differentiation

The production differentiation is the situation of incomplete replacement among the same type of articles produced by the different enterprises in the same industry, owing to the differences in quality, styles, performances, marketing service, information provided and customers' preferences, etc. The purpose of the enterprise's product differentiation is to gain the customers' recognition and preferences by the customized products, so as to increase the market share of its products. The product differentiation is one of the enterprise's main competitive methods, as well as a non-price barrier. The product differentiation influences the market structure mainly in 2 ways; that's, it influences the market concentration and the market barriers to entry.

2.3 Barrier to entry

The barrier to entry is another main factor that parallels the concentration rate and the product differentiation for the market structure. In the research on the market structure, the analyses on concentration rate and product differentiation focus on investigating the market relations of the existing enterprises in the industry, and reflect the quantity and the competition intensity of the existing competing enterprises in the market. The analysis on the barriers to entry however investigates the adjustments and changes of the market relations in view of new enterprise entering the market, studies the competition relations between the existing enterprises and the entering enterprises, and reflects the potential competition intensity in the market. The barriers to entry are the factors, such as absolute cost advantage, product differentiation, scale economy, policies and laws, strategies and behaviors, blocking the new firms' entry when the existing firms in an industry gain super-normal profit. The barriers to entry have impact on the difficulty level of new enterprises entering into the market, so it will influence the market structure's adjustments and changes.

3 Market Structure Analysis of Sports Industry

3.1 Market scale

Table 1 Situation of CSIG Primary Business in 2009

Industrial Products	Incomes of Primary Business (Ten Thousand Yuan)	Profit Margin (%)
Consultation and Management	3843	64.99
Fitness Service	2220	5.22
Sports Competitions	776	36.78
Real Estate Sales	12922	40.55
Total	19761	43.99

Note: The data are from CSIG Industry's Annual Report in 2006.

Since the reform of reorganization of asset of the sports industry, the scales of our sports industrial group companies have become larger and larger. China Sports Industry Group, as the State Physical Cultural Administration's only holding listed company, with 237 management staff out of 1,300 employees, controls CSIG Olympic Garden Management Group, CSIG Fitness Group and CSIG Competition Group, and covers the business in sports competition and performance, sports fitness and entertainment, operation of sports intangible assets, sports goods, sports tourism, sports hi-tech, sports commercial, sports real estate, and sports finance, etc. (See Table 1 for) the company's incomes of primary business in first half of 2009.

Li Ning Corporate is the first IPO sports goods company in China, as well as the first listed star company. Its organizational structure is shown as Figure 4-5. It is the only Chinese enterprise that can compete with Nike, Adidas and other international giants. However, most of sports companies in China still operate in small scales and in diffusion manner, so there's a few enterprises having great influence on the structure of the whole sports industry or forming the strong support for the whole market.

3.2 Market concentration rate

China Sports Industry Group Co., Ltd, as the absolutely “national team” in our new sports industry, is the first listed company of our sports industry, when its total net assets was 207.69 million Yuan before issuance and 458.44 million Yuan after. However, with regard to the annual business volumes of sports goods and manufacturing industry and the total assets of manufacturing industry, all of their CR8 are smaller than 40% (see Table 2); therefore, at present, Chinese sports industrial market is still in the stage of competition with low concentration rate and small scales of sports enterprises. Comparing to the U.S.A. and the U.K. whose sports industries are more than a hundred billion US Dollars, the collectivization process of our sports industry was just started, and larger efforts should be put in merge to realize the optimization of industrial structure and the scale economy.

Table 2 Table of Revenues of Top 8 Enterprises in Chinese Sports Goods Manufacturing Industry in 2007 (CR₈)

No.	Names of Companies	Multiples of Average Revenues of Industrial Enterprises	CR ₈
1	Ningbo Ruibao Fishing Tackle Co., Ltd.	9576	
2	Qingdao Tianyu Fishing Tackle Co., Ltd.	9338	
3	Ningbo Zhongyuan Fishing Tackle Co., Ltd.	8921	
4	Ningbo Beilun Haibo Precision Machinery Manufacturing Co., Ltd	8475	
5	Qingdao Zhengda Fishing Tackle Co., Ltd.	8475	
6	Tianhui Silicone (Shenzhen) Co., Ltd	8178	
7	Maoming Qinghai Sports Equipment Co., Ltd	8000	
8	Zhejiang Xue Yongxing Floating Products Co., Ltd	6631	
	Total	67594	13.37%

3.3 Product differentiation

Table 3 Increase Values and Proportions of Activities in Nanjing of Jiangsu Province

Industrial Products	Increase (Hundred Yuan)	Values (Million)	Proportions (%)
Sports Organizations' Management Activities	1.56		9.2
Sports Stadiums' Management Activities	1.88		11.1
Sports Fitness and Leisure Activities	1.81		10.6
Sports Agent Activities	0.25		1.5
Other Sports Activities	3.80		22.3
Manufacturing of Sports Goods, Garments, Shoes and Hats and Relevant Sports Products	4.27		25.1
Sales of Sports Goods, Garments, Shoes and Hats and Relevant Sports Products	2.90		17.0
Sports Stadiums' Construction Activities	0.54		3.2
Total	17.01		100

The development of sports market largely depends on the level of developed commodity economy, the people's incomes, their spare time, the cultural atmosphere, the differences in concepts, the differences in lifestyles, and other factors. The survey shows the urban inhabitants' sports consumption level also demonstrates the unbalanced situation that the southeastern regions are higher than the central and western regions. Beijing urban inhabitants averagely spent 55.74 Yuan on fitness activities in 2008, increased from 7.24 Yuan in 2007 by 14.9%. In 2004, the inhabitants in Ningbo averagely spend 774.94 Yuan on art, sports and entertainment, increased by 20.75% from the past year, and the consumption on sports equipment and fitness was increased by 94.77%. In Nanjing of Jiangsu Province in 2008, the increase value of the sports industry was 1,701 million Yuan which was 0.45% of the total regional output value (see Table 3). The mentioned digits state that, the proportions of the inhabitants' sports consumption are closely related to the economic statuses; there are apparent different levels in different

regions; and even in the regions with really good incomes, owing to other factors, there are also obvious differences. In view of the sports items, there are also large differences; the ball games are of great development potentials, but the potentials of the items such as gymnastics and weight lifting are comparatively weaker.

3.4 Barriers to entry

With the State's increased efforts to the collectivization reform of the sports industry, the sports industry's barriers to entry have been greatly changed. Firstly, the barrier of policies and laws is gradually lowered. Owing to long time of restriction by the system of the sports industry, the market awareness, the market development and the efficient performance were not good; yet thanks to the rapid development of the sport industry in recent years, the policies in the sports industry are getting loose, which is favorable for the fair competition among the sports enterprises.

Secondly, there is also no high threshold in the capital requirement. Most of sports enterprises that didn't have sufficient or even lack of primary input in the early stage, so during the development, the sports industry, maintained the workshop production by loans and sponsors, have too many difficulties to cope with, due to the limited capital strength; for that reason, the new entering sports enterprises won't face any capital barrier anymore; but along with gradual development of sports investment scales in recent years, the capital barrier to entry of the sports industry, the sports groups in particular, will be lifted continuously. That analysis states that our sports industry is of the market structure with coexisting monopolization and excessively scattered competition. As in the sports industry, the company concentration rates of large groups like CSIG are very high, when the private sports enterprises are comparatively scattered and the processing enterprises are of large quantity but small scales. Moreover, each enterprise's products are peculiar (see Table 4), and those different products are highly substitutable.

Table 4 Distribution of Types of Sports Enterprises in Jiangsu Province

Types of Enterprises	Quantity	Proportion
Sports Goods Manufacturing Enterprises	58	63.7%
Sports Goods Sales Enterprises	33	36.3%
Total	91	100%

4 Conclusion

According to the above analyses, our sports industry is with monopolization and excessive competition; most of 204 sports enterprises nationwide are of regional characteristics, small industrial scales, and non-economic scales; the large group companies like CISG are with high concentration rates when the private enterprises are relatively scattered; and there's no big difference in the structures of sports products in different regions, and there are high barriers to entry to the industry. To further rationalize the market structure of our sports industry, and improve the market performance, this paper proposes these suggestions after research:

4.1 Enhancing collectivization strategy of Chinese sports industry

Owing to our sports industry's late start, insufficient strength and low concentration rate, the road for development by collectivization to optimize the sports industry's organizational structure shall be a fundamental strategy of the development of Chinese sports industry at present and for a long period in the future, as it's favorable for quickly changing the current situation of small and scattered sports enterprises with inadequate scales in our country. During the collectivization, more attention shall be paid to these fields:

(1) Rationalize the group's State-owned asset management system. Establish the new State-owned assets management system for the sports industry, when the State-owned Assets Management Committee is the ultimate owner of the State-owned assets, the sports group is the operator, and the sports enterprise has the right of property of the legal person and runs in the mode of echelon responsibilities but different roles, in order to urge the organic unity of the rights of personnel, properties and affairs of the State-owned assets.

(2) Perfect the sports group's internal operating mechanism. Specify that the relationship between parent company and subsidiary company is that between promoter and invested enterprise, so the parent company isn't the subsidiary company's administrative management organization, and their relationship isn't the administrative reporting relationship between superior and subordinate. The key is to coordinate, orderly and efficient collectivization operating mechanism through improving the legal

person's administration structure, the parent company's management system and the incentive and restraint mechanism. Particularly attach importance to the roles of core enterprises in the group, and through binding the rights and the properties, allow them to fully have the main operators' rights of option, decision-making authority on major issues, foreign investment and assets income. At the same time, deepen the internal reforms of labor, employment and distribution system, so as to promote the establishment of the group's new mechanism by system reforms.

(3) Support the cross-regional sports industrial group established on the basis of the market principles and the core of properties. Recombination and merge of sports enterprises are the inevitable results of the market economic development acting on the sports industry, so the methods to establish the sports groups by administrative means shall be reduced, and the market shall be fully brought into play to urge the concentration of sports resources.

iv. Provide the policy support with respect to the development of sports group. According to the demands, restrictions of sports enterprises acquisition or conglomerate, joint-venture with overseas sports or other enterprises, and investment and financing for sports groups shall be lifted, and the groups with qualified conditions shall be allowed to be listed.

4.2 Adjusting structures, implementing products differentiation

Generally speaking, the differentiation of the sports industry in our country is mainly in 2 aspects. i. increase of horizontal differentiation; in view of the whole sports industry, the business spheres of our paralleled sports groups are different and have largely integrated the sports market and the sports products, when the horizontal differentiation is increasing gradually. ii. Increase of vertical differentiation; in view of the sports groups in the same type, the operation of the group expands from the industrial chain focusing on the content production to the cross-sports and cross-industrial chain, so the vertical differentiation is increasing gradually. For example, the operating business of China Sports Industry Group Co., Ltd covers sports competition and performance, sports fitness and entertainment, operation of sports intangible assets, sports goods, sports tourism, sports hi-tech, sports commercial, sports real estate, sports finance, etc.; Shanghai Sports Industrial Co., Ltd of East Asia Group, besides professionally manufacturing sports fitness equipment and sports goods, owns "Shenkang Sports Equipment Development Center" with the experts from Shanghai Jiao Tong University, Shanghai Sports Research Institution and other institutions; those prove the great vertical differentiation of the sports groups in the same type. Therefore, the sports enterprises must change their concepts and production patterns, but exert the regional advantages based on the local features, in order to form mutually promotive, characteristics-complementary, regional sports industrial patterns. At present, the sports industry has developed peculiar characteristics and advantages in different regions; for example, the sports goods manufacturing industry is much developed in Guangdong and Zhejiang Provinces, when the sports fitness and entertainment industries are more mature in Beijing. Thus must pay attention to the different characteristics of the sports industry in those regions; attach importance to bring those regional advantages into play; and avoid blindly pursuit for big and complete scales or simple replication in different regions; in order to finally form mutually promotive, characteristics-complementary, coordinately developing, regional sports industrial patterns.

4.3 Further lifting barriers to entry for sports enterprises

Except few large enterprises, most of the sports enterprises are unable to form the absolute cost advantage and the scale advantage, when those enterprises' capital requirements are also smaller; at the same time, the behaviors blocking entry will take into effect only when oligopolistic firms in negligible quantity mutually coordinate and form the uniform industrial price in the condition of high market concentration rate, and the enterprises adopting the behaviors to denying competitors must be capable of bearing the loss for low price; in the light of that condition, most of the enterprises in the sports industrial groups do not have the conditions to set up behavioral barriers to entry, which are hardly form by the enterprises' behaviors but only by the government's restrictions objectively.

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