

2014

# BioTechnology

*An Indian Journal*

FULL PAPER

BTAIJ, 10(14), 2014 [7834-7840]

## Analysis on improvement of the performance assessment and evaluation system of physical asset usage condition

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### ABSTRACT

The performance assessment of physical asset usage condition can play an active role in promoting the development of national sports industry. Seen from the development momentum of national sports undertakings, the proper usage of physical asset plays an important part in promoting China's economic development. By adopting performance assessment, the relationship between project investment of sports industry and earnings gradually becomes clear, besides long-term planning of the development goals of sports industry can also be achieved. It not only drives the further development of national sports industry structure, but also plays an important role in strengthening sports related industrial chain at the same time. The paper conducts relevant research through establishing the evaluation system, so as to form sustainable development goals between national sports industry and other industries.

### KEYWORDS

Sports industry; Performance assessment; Evaluation system; Construction idea.



## INTRODUCTION

The rapid development of sports industry is closely related with sports culture. Different industries can integrate with sports through culture, thus providing favorable conditions for the rapid economic development of China. However as the important embodiment of accurate capital investment of sports industry, the performance assessment of physical asset usage condition provides reliable protection factors for the rapid development of sports industry through constructing and improving evaluation system.

The paper conducts the study from four aspects including evaluation index system design, establishment of quantitative indicators, object classification and economic properties national physical asset usage condition, measures improving management efficiency and operation efficiency of state-owned assets, which can make performance assessment and evaluation system more scientific. Conducting corresponding concept discussion and adopting scientific computing mode can make national physical asset usage condition more reasonable and provide solid theoretical and data foundation for further research.

## DESIGN OF ASSESSMENT INDICATOR SYSTEM

Many fields are involved in sports industry. Among them, the intellectual products have a huge impact on people's daily life, which is an important reflection of the constantly improving living standard. Meanwhile, the sports industry is closely related with culture. As long as sports form its own culture, it can integrate with various fields and develop industry chain, thus becoming an important driving force of economic development in China. The rapid development of national sports industry has its own influence and economic effect. It not only can further improve the regional economic development in developed area, but also can become a corresponding driving force in underdeveloped area, which will make an increasingly usage of sports industry funds and develop the sport culture to a certain extent. The close integration of sports and culture provides sufficient protection for the establishment of sports industry chain, while effective support of government departments makes the investment and usage of sports industry funds more reasonable<sup>[1]</sup>. In addition, each department should coordinate various factors such as industrial structure and government behavior to make the input of sports industry proportional to its output. In this paper, a scientific performance assessment and evaluation system of physical asset usage condition is established from the angle of culture, and corresponding discussion is conducted combining with various indicators. Corresponding discussion of the construction principles of evaluation indicators system is based on reality. The specific principles are as shown below.

- Principle of taking economical efficiency, efficiency and effectiveness into consideration
- Principle of setting up targeted, compatible and innovative indicators
- Principle of combining quantitative indicator with qualitative indicator
- Principle of combining innovativeness with practicality

The performance assessment and evaluation system of physical asset usage condition is made up of the following three aspects:

(1) Implementation indicator of project. The implementation indicator of sporting events refers to the implementation process and completion status of predetermined target. It mainly includes the aspects such as application status of project funds, progress of detailed project, predetermined goals and relevant completion status.

(2) Economic indicator of project. Economic indicator mainly includes financial rating indicator of sports industry and overall evaluation indicator of national economy.

A financial rating indicator refers to the economic benefit produced by relevant projects of sports industry after investing funds. The economic benefit discussed in the paper often refers to net benefit and it is mainly reflected through two aspects namely net present value and loan repay ability which are the fundamental part of financial rating indicator of sports industry project. While the construction of

evaluation indicator of national economy takes the overall development of national economy as reference. Through effective analysis on politics, economy and culture, the physical education asset usage condition is comprehensively evaluated.

(3) Impact indicator of project. The impact indicator of project involves in many aspects such as economical factor, environmental factor, social factor. Economic impact indicator mainly refers to the positive role of project expenditure of sports industry in social and economic development and the corresponding impact on the environment of social development. Environmental impact indicator mainly is the corresponding evaluation of the changes of people, including aspects like morality and culture. However, social impact indicator involves in many aspects. Instead of only covering the economical and environmental indicator, it also on that basis, gives positive evaluation to the tangible benefits of social development, thus making the construction of impact indicator become an important protection factor of measuring the accuracy of sports industry asset usage<sup>[2]</sup>.

## QUANTITATIVE INDICATOR

### Basic indicator

Basic indicator includes four first class indicators, ten second class indicators, and twelve third class indicators.

### Financial funds status

The application status of sports industry funds mainly refers to the basic efficiency of funds arrival, application timeliness of industry, timeliness of carrying out corresponding measures. The situation mainly refers to whether the application process of sports industry funds can achieve satisfied effect.

The arrival rate of sports industry funds mainly includes two parts. Firstly, strict calculation of project funds arrival rate. The computational process is relatively simple, mainly based on the specific value of actual project investment dividing by expected project investment. The computational process of arrival rate of project funds is to scientifically calculate on the basis of the specific value of actual project investment dividing by expected project investment, thus obtaining explicit value. The second is to conduct composite evaluation on certain indicator of sports industry. The indicator is made up of the above two data.

However, the first thing to do in the process of evaluating the timeliness of funds arrival of certain sports industry project is to carry out simple-process evaluation on indicators. The evaluation idea is to divide the time of fund payment by the time of completing sports project, so as to obtain corresponding numerical value to carry out simple-process evaluation<sup>[3]</sup>. And the corresponding evaluation process of arrival status of supporting funds also should be carried out through simple-process evaluation. The main computational process is to divide the total invested supporting funds by the total planned investment, thus obtaining the corresponding numerical value to carry out simple-process evaluation. In this process, however, the funds consist of self-raised funds, financial funds, bank loans, and some other aspects. Therefore, regarding the judgment of enterprise investment risk factor, this indicator can only be used as one reference factor of performance evaluation of sports industry project assets usage, rather than a consideration factor for evaluating the overall performance weight.

### Basic status

The so-called financial fund management status is whether the enterprise can effectively use and manage funds according to measures of managing industry funds and the relevant examination and approval system and procedures in the process of funds management. Specifically, the judgment should be made according to the audit report issued by independent certified public accountant. Among them, the project financial management should be carried out according to the “Yes” or “No” system. “Yes” is to record all funds, while “No” is to record the capital management process as zero. The “Yes” or “No” system can fully adapt to the planning target of the sports industry management and put forward to

relevant practicable scheme for project development of sports industry. If the solutions can meet the real need of the national development and planning in the corresponding judging process, it should be fully recorded instead of being recorded as zero.

### Project funds status

The primary factor of reasonable use of business capital is to further guarantee the efficiency rate in the process of application, which also can fully reflect whether the sports industry capital usage is scientific and reasonable. The so-called capital expenditure savings rate is the calculating relationship between actual status of enterprise project investment and the expected target. The overall calculation process is as follows:

$$\text{Capital expenditure savings rate} = \frac{\text{Budget expenditure} - \text{Actual amount of expenditure}}{\text{Actual amount of expenditure}}$$

Seen from the calculation of above formula, if the result is a positive number, then it is the efficiency rate of enterprise project fund, and if the result is a negative number, it represents the fact that the enterprise fund usage exceeds the expected investment. However, during the calculation of expenditure efficiency rate of sports industry project, the generation of positive and negative value can form corresponding evaluation scores for project evaluation process. For the payback period of enterprise investment gains, this evaluation indicator fully shows the engaged time of capital gains gathering project. During this period, period of time should be as shorter as possible, which can have a positive influence on investment benefit<sup>[4]</sup>. The computation process of payback period of investment return is shown in equation below:

$$\text{Payback period of investment} = \frac{\text{Total investment of project funds}}{\text{Annual average earnings or project funds}}$$

In the above formula, the average equity indicator of project funds can only be regarded as a reference factor of performance evaluation instead of specifically evaluating it. The risk coefficient indicator of funds recouping should be regarded as an important evaluation factors of project investment. Taking different industries into consideration is also one reference factor of performance evaluation, and it should not be listed as corresponding evaluation indicator.

### Financing status

(1) Scientific computation of financing difficulty. The calculation of financing difficulty mainly covers two aspects. First of all, calculating from the aspect of equity financing. In this paper, relevant calculation of debt financing is carried out. In the tide of market economy, the development of enterprise can't depart from the support of funds, but funds usage is not simple. The financing process and the relevant funds usage of each project is relatively complex. In the process of development, the relatively strong cultural characteristics of sports industry bring corresponding risks, thus both of two influences should be taken into consideration so as to have a better understanding of financing difficulty and make fund financing and usage more reasonable<sup>[5]</sup>. The specific operational formula is as shown below:

$$K = D / P \cdot (1 - f) + G \tag{1}$$

It can be seen from the above formula that the operational process of common stock is to divide the dividend in the first year by the product of funding amount of the common stock multiplying by the financing cost of common stock within one year, and then add to fixed rate. Thus, the cost of common stock can be accurately calculated. The calculation of borrowing cost is an important part of the operational process of financing difficulty, The specific formula is as follows:

$$K = i \cdot L \cdot (1 - T) / (1 - f) \quad (2)$$

It can be found from the above formulas that the construction idea of formula (1) and formula (2) is roughly same. Based on the relationship among loan interest rate (I), income tax of enterprise benefits (T), loan funding lines (L) and long-term loans financing cost ratio (f), corresponding operation process is carried out on enterprises borrowing cost to make the calculation of borrowing difficulty more scientific and effective. However the scientific operation of weighted average capital cost is also one of the fundamental elements making operation process of enterprises financing difficulty more scientific and it also provide a solid theoretical foundation for sports industry to improve financing and make funds usage more reasonable. Specific operation formula is as shown below:

$$K_w = K_j W_j \quad (3)$$

As can be seen from the above formula, the construction idea of the formula is very clear with corresponding statistics carried out on cost rate of different funds. According to the share percentage of this fund in sport industry capital, the performance between two capitals is just the computation process of weighted average capital cost (WACC), in which the WACC is divided by the arithmetic product of total investment and weight, thus the financing difficulty coefficient can be obtained.

### Operating leverage and financial leverage

Operating leverage refers to the phenomenon of operating profit rate of change being greater than production and sales rate of change because of existing fixed cost. Operating leverage coefficient

$$DOL = (\Delta EBIT / EBIT) / (\Delta S / S)$$

EBIT is the operating profit of base period ; $\Delta EBIT$  is the variations of operating profit; S is the production and sales of base period;  $\Delta S$  is the variations of production and sales. Financial leverage refers to the phenomenon of variation amount of earnings per share of common stock being greater than the variation amount of operating profit because of existing fixed financial cost. Financial leverage coefficient

$$DFL = (\Delta EPS / EPS) / (\Delta EBIT / EBIT)$$

EPS is earnings per share of the base period;  $\Delta EPS$  is increment of earnings per share; EBIT is the operating profit of base period;  $\Delta EBIT$  is the increment of operating profit. The performance assessment indicator of this project actually is combined leverage.

$$DCL = DOL \times DFL$$

The performance assessment value is the product of combined leverage coefficient multiplying by weight.

## THE ECONOMIC NATURE AND OBJECT CLASSIFICATION OF NATIONAL SPORTS INDUSTRY ASSET USAGE

The national sports industry expenditure can be divided into business expenditure, operation expenditure, infrastructure expenditure and subsidies for subordinate units according to economic nature and usage of expenditure. Business expenditure refers to the expenditures occurring in the teaching, scientific research and auxiliary activities carried out by sports industry. The sports industry expenditure can also be divided into salary and welfare expenditure, products and services expenditure, family and

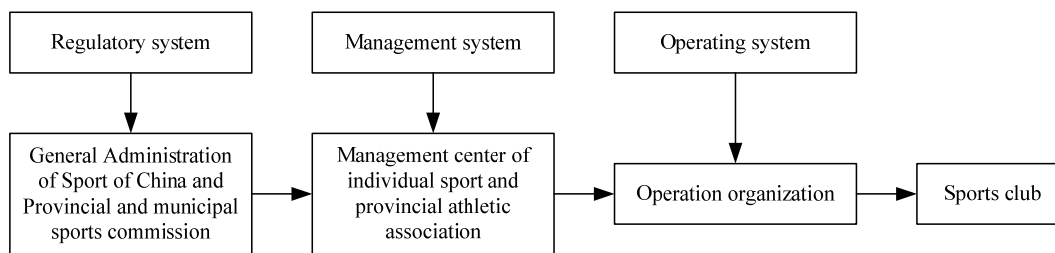
personal security expenditures according to new expenditure classification, namely economic classification system.<sup>[6]</sup> Business spending is the most important part of total expenditure of sports assets. It mainly includes scientific research expenditure, business supporting expenses, administrative expenses, logistics costs, welfare spending. The personnel expenditure in business expenditure mainly includes all kinds of labor remuneration and social security fee of workers in service and temporary workers ; the subsidy expenditure for personal and family security. (as shown in TABLE 1).

**TABLE 1 : The expenditure structure table of sports industry(Ten thousands)**

project	total	personnel expenditure			public expenditure		
		expenditure	the ratio in business expenditure	growth rate	expenditure	the ratio in business expenditure	growth rate
Year 2001	111976	51381	45.89%		60595	54.11%	
Year 2002	136191	58597	43.03%	14.04%	77594	56.97%	28.05%
Year 2003	153442	60649	39.53%	3.5%	92793	60.47%	19.59%
Year 2004	150860	58713	38.92%	-3.19%	92147	61.08%	-0.70%
Year 2005	176803	67985	38.45%	15.79%	108818	61.55%	18.09%

**THE MEASURES OF IMPROVING MANAGEMENT EFFICIENCY AND OPERATION EFFICIENCY OF STATE-OWNED ASSET**

It can be fully learned from the 15th CPC government report that the establishment and improvement of the management measures, supervision and evaluation mechanism of state-owned assets of national sports industry and ensuring normal operations can provide adequate protection for state-owned assets of sports industry and achieve constant growth<sup>[7]</sup>. Under the new development situation, the development direction of state-owned assets is also an important development direction of sports assets. In terms of management, the management mechanism of sports assets management department should be improved on the basis of the basic principles of hierarchical management of government to ensure a scientific, reasonable and systematic physical asset management. The specific construction ideas is as shown in Figure 1.



**Figure 1 : Managing, monitoring and operating mechanism of state-owned sports asset**

**CONCLUSION**

Seen from the perspective of sports industry development, sports assets usage determines national sports development, plays a positive role in establishing a scientific sports industrialization pattern and provides favorable conditions for the rapid development of society and economy. The corresponding performance evaluation combined with physical assets usage and the positive evaluation given to the input of sports assets makes the construction of evaluation indicator more persuasive, and at

the same time provides a solid foundation for the coordinated development of sports undertakings and other fields. Based on the construction process of performance assessment and evaluation system of sports asset, the paper systematically analyzes the evaluation indicators and conducts relevant discussion on the establishing process of evaluation mechanism and management mechanism with the hope of making national physical asset usage more reasonable.

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