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Evaluation of implicit competitiveness of China's sport goods industry and comparison with international standard

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ABSTRACT

Today, national standard, enterprise standard and other related indicators for sports goods companies have been attached with great importance by the state. Since there have been no relevant standards, or no formal industry standards for sports industry for long, or due to other factors, the production level of sports goods in China has always lagged behind the Western countries. So it is imperative to develop technical standards, standardized production processes, strengthen quality management of sports products, and quickly make China the largest producer of sports goods. This paper analyzes the current situation and shortcomings of sporting goods industry, and proposes solutions to these problems.

KEYWORDS

Industry indicators; International competitiveness; Sports products industry.

INTRODUCTION

As early as 2006, the state has introduced the relevant documents, explicitly putting forward the industry indicators planning and patent protection strategy. Again in June 2006, the state promulgated "National Intellectual Property Strategy", and proposed to implement patent protection strategy. This policy signal indicates that Chinese government has begun to attach great importance to the industry index planning. Then on May 17, 2007, we successfully held Twentieth China International Products Exhibition for Enhance Physical Condition, and set up a special committee agency to be responsible for the development, specifications, and management of industry standards. This fully demonstrates the Chinese government has begun to attach great importance to the industry index planning. From 2008, domestic production of products in this regard has changed, many manufacturers are slowly recognizing that our production industry of products for enhancing the physical condition has entered a relatively mature stage, there are some indicators need to be improved. So, at present, China's sports goods industry is not big enough scale, productivity is also not strong enough, in order to change this situation, the government has to increase the intensity of services, and increase input of manpower, material resources in this area. Further improve industry standards and regulate the production process as soon as possible, so that China’s production level of sports goods can quickly reach the international advanced level.

BASIC CONNOTATION, FUNCTION AND ROLE OF TECHNICAL STANDARD

Basic connotation of standards and technical standards

Since International Organization for Standardization released ISO Guide II in July 1983 (fourth edition),and since enlarged college enrollment, college students are growing, a lot of capital and equipment are also input into construction, especially after the 21st century, computers and networks continue to prevail, constantly improved computer technology and continuously declining computer hardware prices make computers gain popularity, and become an indispensable tool in life. In universities, laboratory is the place to experiment, it can be said as scientific research base, and place for the generation of technological development, and thus the laboratory's investment is generally large, computer labs with rapid development in recent years are particularly so, in order to meet the requirements of study and work, various computer labs came into being, and classification and division have increasingly clear trend, so the management of the computer labs also has deeper level requirements, we should not only to manage the various laboratories equipment, but also classify and analyze a variety of files based on optimizing computer resources, and provide basis for the development of long-term development guidelines for managers. But for now, the majority of university computer lab management methods are relatively lagged behind, mostly based on labor management, which brought heavy work pressure to laboratory management personnel, therefore, to develop a computer lab management platform becomes necessary, the platform can not only carry out standardized and scientific management of the laboratory, free the managers from heavy labor, but also can provide reference data for decision-makers in a certain sense.

In recent years, some computer labs in China have developed similar systems, such as integrated management system designed by Tsinghua University, which is capable of fully automated room management; Central South University of Technology has developed lab information management system which can rationally use devices and network resources, which is a web-based implementation, mainly to complete the computer lab automation management. At present, China not only has universities to design and complete computer lab management system, and preliminary open laboratory management concept has already been generated, and some commercial software has been developed for use, but most of the software faces companies, and is not applicable to college computer labs, and can only provide a reference. Foreign laboratory management system has early start, and rapid development, now three phases have been promoted and used, and the current phaseplaces more emphasis on the overall management of the laboratory.

Function and effect of technical standard

At present, investment in most university laboratory infrastructure and hardware devices is increasing, and the computer technology and network technology are rapidly developed. Software development has not kept up with hardware development. In order to address this issue, some universities have already entered into the development of management software for the existing computer laboratory as required, and have also achieved some success, but there are still a large number of universities that have significant problems in this regard. For these universities, the laboratory management is still in the stage of manual operation. Such management mode brings heavy work to the managerial personnel for its low work efficiency, and mistakes are prone to occurring in archiving and query. Because management is mainly manual, it cannot display the files as data clearly and delivery to the decision-makers, and cannot provide scientific basis for the development of laboratory. In this context, the computer laboratory archival management platform that can be used as simple operation interface and generate reports is more significant.

URGENT NEED FOR TECHNICAL STANDARDIZATION STRATEGY OF SPORTS GOODS IN CHINA

Technical standardization strategy and the objective of technical standardization strategy in China

The purpose of this platform is to make archival laboratory management, which means to integrate the above-mentioned standardized management. This platform should meet the management needs, record the data generated in management, and also automatically generate standardized management documentation. The production value of China's sports goods industry in 2005 to 2009 is shown as Figure 1.

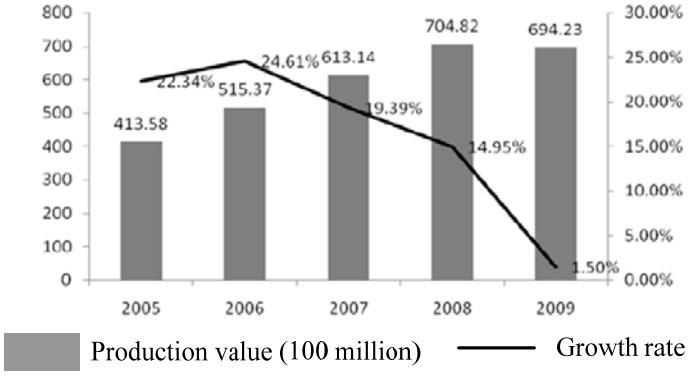

Figure 1 : Production value of China's sports goods industry in 2005 to 2009

In the design of the platform, different needs for different users should be fully considered. in the point of the laboratory equipment administrator, these users need to follow the initial information and use status, and to monitor in real time that whether the computer hardware and in laboratory is damaged or whether the software needs to be updated; in the point of the teaching managers, these users need the experimental program provided by teachers and machine performance and attendance of students; in the point of the teachers and students, these users need experimental plan, experimental analysis report and the final results. After meeting the needs of different users, we can have a clear impression on the designing platform, integrate the above information, set these needs in the form of files into the daily management of l laboratory, and finally establish a computer laboratory archival management platform.

At present, the scale of China's sports goods industry is not large, and productivity is also not strong. In order to change this situation, the government has to increase the intensity of services, increase the investment in manpower and material resources. Further improve the industry standards and

regulate the production process as soon as possible, so that China's production level of sports goods can quickly reach the international advanced level.

Standardization of sporting goods is extremely urgent

Over the recent 20 years, Chinese sporting goods manufacturing has been rapidly developing, with its goods accounting for 65% in global market. “Made in China” also has been an oversea hot topic. The above information analysis sheds light that this platform is an integration of equipment, teaching and platform management. Equipment management shall be inclusive of hardware information and equipment maintenance information and discarding information. During teaching management, we shall be clear about all lab information and corresponding experimental projects. Teachers and students can search experiments by logging in. Aside from this, the teaching management shall also be capable of admission marks of and submitting experiment analysis; for the platform management, different users shall be given different permission to ensure platform safety.

Besides the function of meeting the above users demands, this platform can also gather other factors together in daily management to form a formal processing flow, and then present it by file. This can not only speedily show all information of labs, but also contribute to standardized management of this information. Meanwhile, different electric data can be shared via this platform. These are archival processing of lads’ information. This platform’s instantaneity, which can conduct trace-analysis to the whole flow, does an adverse effect to lad maintenance. However, these trace analyses can stored for searching when problem occurs. The total predication of sporting goods is shown as Figure 2.

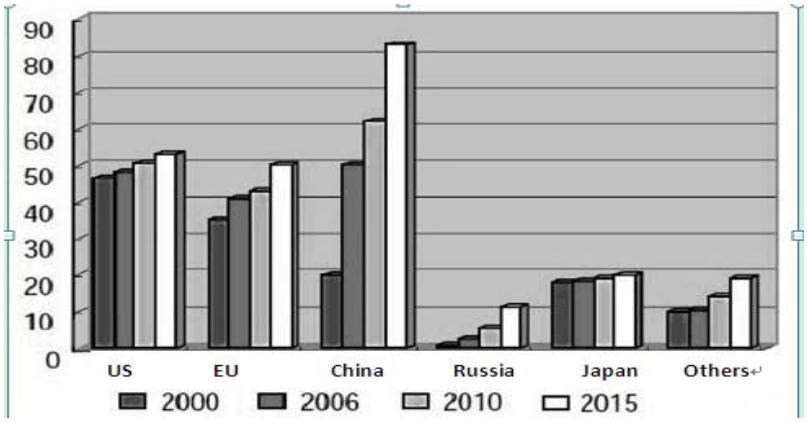

Figure 2 : The total predication of sporting goods (unit: billion dollars)

With the development of economic globalization and liberalization of international trade, market competition involves more than competitions of product and technology. Technology standard has become a new commanding height. The technology standard holders own initiative or even control. The above information analysis sheds light that this platform is an integration of equipment, teaching and platform management. Equipment management shall be inclusive of hardware information and equipment maintenance information and discarding information. During teaching management, we shall be clear about all lab information and corresponding experimental projects. Teachers and students can search experiments by logging in. Aside from this, the teaching management shall also be capable of admission marks of and submitting experiment analysis; for the platform management, different users shall be given different permission to ensure platform safety.

A new concept has been in foreign countries: third-class enterprises are devoted to products; second-class ones devoted to brand; first-class ones devoted to patents; while super ones devoted to standards. Thus, a speedy standardization and completion for Chinese sporting goods technology standardization is in an urgent need to be geared to international standards. Market share in 2000, 2006, 2010, and prediction of 2015 is shown as Figure 3.

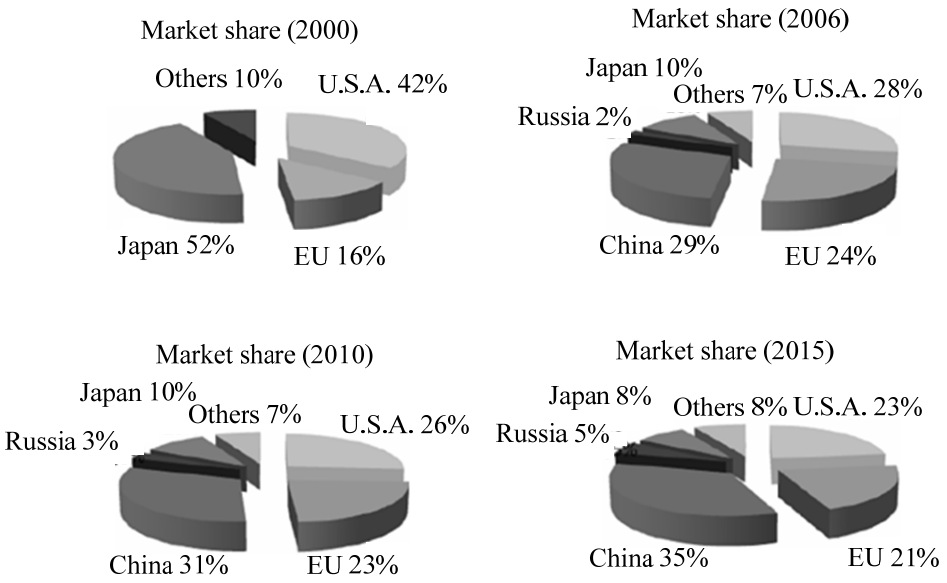

Figure 3 : Market share in 2000, 2006, 2010, and prediction of 2015 (unit: billion dollars)

CURRENT SITUATIONS AND EXISTING ISSUES WITH RESPECTS TO TECHNICAL STANDARDS IN CHINESE SPORTS PRODUCTS INDUSTRY

Each component in each module is made up of four tiers. Taking the attendance record in attendance module as an example, the four tiers include registration business, check of registration business, database statement generation of the registration business land the data object body of registration business. Among such four tiers, the registration business provides an interface for access of the data in the data base, and it incorporates three attributes. This type of business may be used to realize access of the database and calls of data in three other categorizers. The check of registration business also provides four check methods which are used to verify the business rules packaged in the business type returned. The database statement generation of registration business also provides four methods which are used to return the database statements to the registration category as a character string. The data object body of registration business is to create a new virtual sheet in the virtual database. It is for use of temporary data storage and the table includes fields from corresponding sheets to the data base. In addition, new table attributes may be added at any time if required by the data body.

Weak components of the standards

The dominant position of a sports product enterprise is a pre-condition for technical standards on sports products, of which the core element is the technological innovation capacity of such enterprise. Besides the market capacity and talents with respect to standard a well as other factors are influencing and influenced by each other, forming a complicated situation which, working together, restrict the implementation of technical standard strategy in Chinese sports product industry.

As the computer network becomes popular than ever, and with the continuous improvement of computer technology and drop of computer hardware prices, computers have been widely used in China and have become an indispensable tool in people's life. In colleges and universities, laboratories provide places for tests and experiments or it can be used as a base for scientific researches and a place where new technologies is developed. Therefore, in most cases colleges and universities make huge investments in their laboratories, especially in the computer lab which were developing at extraordinary speed in recent years. A various types of computer were established to meet the requirements for study and work, besides their classification tended to be clearer. These changes put forward new requirements on management of the computer labs. The managers need not only manage all devices in the lab but also

optimize the computer resources and carry out sorting and analysis on various documents and records, in order to provide basis for long-term policies to be made by their managers. But so far, the computer laboratory management was inadequate developed and labor management is still prevailing in most labs, which resulted in heavy work load to the lab managers. As such, it is of great essence to develop a computer lab management platform that can not only realize standardized and scientific management but also can free the managers from heavy work. Moreover, it should also provide data references to decision makers to certain extent.

In recent years, similar researches and development had been launched by some computer labs in China. A case in point is the general management system designed by Tsinghua University, which can realize fully automatic management over the computer lab. Another example is the laboratory information management system developed by Central South University of Technology, which can realize reasonable utilization of the devices and network resources. This system is a Web base system aiming to carry out automatic management of the computer laboratory. So far, some colleges and universities have developed their computer lab management systems and a primarily open lab management concept is coming into being. What's more, some software developed has been commercially available for application. However, most of such software systems takes enterprises as their target users and is not very suitable for application in high school computer labs and can only provide a reference basis. The sports product industry in China is not yet large enough though their production capacity is not strong enough. To change the current situations, more government services and investment in talents and materials will be required. With these efforts, it is expected to complete and improve the industrial standard and to regulate production process, so that Chinese production capacity of sports products can develop quickly and reach the internationally leading level. The Exports and growth rate sports products of China between 1999 and 2006 is shown as TABLE 1.

TABLE 1 : Exports and growth rate sports products of China between 1999 and 2006 (Unit: Hundred Million USD)

Year	Sports device		Sports shoes		Sportswear		Sports products	
	Export	Growth	Export	Growth	Export	Growth	Export	Growth
1999	9.33	---	18. 92	--	4.74	---	32.99	--
2000	11.94	27.97%	22.58	19.34%	5.64	19.08%	40.16	21.25%
2001	19.73	62.24%	26.32	16.56%	5. 05	-10.02%	51.1	27.24%
2002	28.18	42.83%	29.25	11.13%	5.51	9.02%	62.94	23.17%
2003	37.48	33.00%	33.53	11.18%	7.19	30.52%	78.2	24.25%
2005	39.6	--	39.6	--	10.6	---	89.32	--
2006	49.1	23.9%	46.4	17.10%	13.3	24.4%	108.8	14.2%

Data source: customs.gov.cn

Weak market basis of technical standard competition

"Standard market adaptability" is the core issue of the technical standard strategy in our country, as well as the starting point and destination of all the strategic thoughts, objectives and countermeasures. Additionally, the designed platform should satisfy not only the management function, but also the following requirements so as to ensure the steady operation of the system. Firstly, the purpose of the platform design is to liberate the administrator from the labor management pattern and to normalize the working process on the basis of increasing the work efficiency. Therefore, this platform must be stable and reliable. Secondly, since this platform will be operated inside colleges and universities, it should also have openness in order to lay a sound foundation for the management of adding laboratory for other majors in the future. Thirdly, there are many users of the platform. So there should be humanization elements in the design. And the designed platform should be easy to operate and convenient to use. Lastly, the database of the platform has large amount of archival information which can be connected through Internet. So the confidentiality and security measures are very crucial. In the data storing

process, only the specialized personnel is authorized to visit and modify the data information. The market share of the sports commodity brand at home and abroad is shown as TABLE 2.

TABLE 2 : Market share of the sports commodity brand at home and abroad

Global market share of sports commodity industry			Market share of self-owned brand at home		Global market share of famous brands	
American brands	European brands	Brands of China and other countries	Domestic market	International market	Nike Adidas	Li-Ning Qingdao Double Star
45%	30%	25%	50%	25-30%	35%	1.5%

Data source: Chinese garment network: http://www.china-ef.com

CONCLUSION

This paper minutely introduces that national standard, enterprise standard and other related indicators of sports product enterprise have attracted great attention by the nation. Because of the lack of sports industry related standards or normal industry standards in a long time before, our production level of sports product is always lagging behind western developed countries. So our imperative task now is to formulate technical standards, building normal work flow, and strengthening quality management of sports product, and making our country a big sports product producing country as quick as possible. This thesis mainly analyzed the current situation and deficiency of the nation's sports production industry, and proposed solutions to solve these problems.

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