A Study on the Construction of Scientific Fitness Service Platform

Yuan-xiang LIU and De-wei MAO
Sport Science Research Center, Shandong Sport University, Jinan China

Keywords: Scientific fitness, Service platform, Establish, Operating mechanism.

Abstract. Under background of the national fitness strategy, this essay uses the literature data method, the expert interview method and the analytics to analyze disadvantages of national fitness and the necessity of establishing a scientific fitness services platform in terms of the supply and demand sides. It demonstrates the thought of establishing the platform in terms of its content, structure, organization and management, and the technical route. From the standpoint of the service mechanism in the platform, the financing mechanism, resource sharing and collaborative mechanism, and the performance evaluation mechanism, it analyzes the mechanism of guaranteeing the platform to run smoothly.

Introduction

The issue of “Healthy China 2030” drew up a guiding plan for promoting nationwide fitness in the next 15 years. Nationwide fitness is not only the significant part for healthy China but also the important access to intervene health in a non-medical way. The General Administration of Sport constructs a demonstration plot of scientific fitness zealously on how to make sports play an important role in building healthy China and points to the contradiction between the insufficient capacity of resident scientific fitness and the vigorous development of social demons. It is a project which manages to promote people’s scientific fitness awareness and improve the level of scientific fitness and the way to achieve the transformation between technological service and result. In addition, it is an important measure to implement the policy of "Technology for People" and the plan of "Healthy China 2030". This research elaborated the necessary, construction and movement mechanism of scientific fitness service platform, on the example of the General Administration of Sport building scientific fitness plot, the Shandong Province Scientific Fitness Guiding Center. It will provide a theoretical foundation for the research and establishment work on scientific fitness plot in the future.

The Analyses on Necessity of Construction of Scientific Fitness Service Platform

In October, 2014, the State Council has issued a file called Developing Sports Industry and Promoting Sports Consumption which regards the National Fitness as national strategy and the improvement of national constitution and health as fundamental goal. Nowadays, national fitness arouse enthusiasm. However, many people cannot get efficient feedback because of lack of awareness about their own constitution and scientific fitness guidance. More than 70% people who do sports are blind and casual, and do not have fitness knowledge, especially people from rural area do not have fitness guidance, and they are easily get wounded during do sports.

The Imbalance between Science Health Services Supply and Demand

From the perspective of scientific fitness service demands, the mass have high enthusiasm on fitness, however, their fitness methods are not scientific. High quality of scientific fitness guidance cannot be available to assure fitness effectiveness. From the perspective of scientific fitness service supply, fitness centers operate on their own, which leads to high operating cost. They lack senior professional and technical staff, and cannot provide 24-hour service because of few service objects.

Lagging Construction of Scientific Fitness Service Platform Service System

Several problems exist in service system construction such as lagging service system construction, a single service pattern and incomplete operating mechanism. They claimed to share during
construction, but keep autonomous during runtime. The construction showed individualized trend, the characteristics are small, closed and dispersed. Organized service cannot come true because of uncooperativeness. The operating mechanism is not perfect, and the construction of relevant policies and incentive mechanism lags.

**Scientific and Technological Achievements in Scientific Research Institutions Cannot Serve the People**

There is no effective marketing means to generalize sports research achievements, which reduce chances for sports participants to access to fitness knowledge. “Two sheet skin” phenomena between science research and application exist obviously. Universities, research institutions and social resources cannot be integrated effectively. Sports science research project dominated by government cannot achieve a goal of serving people under the current mechanisms.

In order to bring sports’ roles in furthering healthy mark forward, prolonging healthy life and improving life quality into full play, and to inspire the national fervency to participate sports activities and to promote the formation of investment health consumption ideas, new ideas and forms about sports science achievements benefiting the people should be explored. Universities’ scientific research advantages, Superiorities of applied research and industrialized resources in research institutes and developing departments of companies should be integrated. They should cooperate and achieve complementary advantages. Through scientific fitness service platform construction, national fitness management system innovation and operating mechanism will be positively promoted.

**The Construction of Scientific Fitness Service Platform**

**The Connotation of Scientific Health Services Platform**

With universities as service background and networking, big data and cloud computing technology as supports, service background was constructed, and city fitness center, social organization, fitness websites was coordinated as service front-end. Then, “Scientific fitness service platform” is constructed, and an integrated innovation of key core technology for developing “scientific fitness service”. Finally, “one to all” of fitness guide mode is achieved. The mode is oriented to people with slow disease, the fitness lovers, inferior health people. It uses websites and online providing scientific fitness service which integrates national fitness study, scientific health management, cultivating people, decision service and imparting knowledge. It constructs the organic integration of the three resources including a prominent government, society and market, and presents current national fitness as national strategies. It explores a long-term organization system and management mechanism which can provide scientifically personalized fitness guidance service to solve the contradiction between supplying incapacity of the current residents’ scientific fitness service and increasing social needs.

**The Architecture of Scientific Fitness Service Platform**

Any organization is a system which is formed by various subsystems. Scientific fitness service platform system includes service platform, service front end, support system and on-line service system. The whole platform relies on network, and make interconnection between background and service front ends come true. The scientific fitness service platform functions through a combination of online and offline modes. Service front ends include various fitness guiding office and fitness centers in counties, cities and provinces; Support service system includes people and money used to background construction such as constitution test room, motor function assessment room and online experts service room and so on; The system provides online service such as experts online service system, portal sites, hotlines and APP software. On the premise of developing scientific fitness platform’s core functions, a function of fitness industry development is promoted via knowledge-imparting, scientific research, decision service and talent development. Network technologies and supporting services system is the premise and basis of platform, and is the security of running various systems. (Figure 1.)
Organization and Management of Scientific Fitness Service Platform

In order to ensure the smooth implementation of scientific fitness service platform construction, the business will be guided by science and education department and group secretary in General Administration of Sport of China and provincial sports Bureau. Various professional committees will be established to be responsible for platform operating and offering scientific fitness service guidance. (Figure 2.)

Figure 1. The framework of scientific fitness service platform.

Figure 2. The Organization and Management of Scientific Fitness Platform.
The Technical Route of Scientific Fitness Service Platform

With government as dominant factors and market operation and multiple needs as principles, a scientific fitness service platform will be established as a background based on society. The platform will serve several front carriers such as provincial front guiding offices (sports center), provincial front constitution health-checking center (scientific center), fitness guiding offices in various cities and counties (fitness center), various fitness sites (fitness clubs), phones or websites and people (with slow diseases, fitness hobbies and inferior health) who wear costume, bracelets, iWatch and Pedometer. Background and front ends can be connected through websites offering scientific fitness guidance for front carriers to serve fitness people. (Figure 3.)

Relying on Websites and Interconnection. Relying on well-established national constitution-testing offices and with national fitness centers in various cities as emphases, the platform generally apply to fitness websites, sports lovers, and counties and cities, and connected scientific fitness guidance background service platform with front carrier.

Constructing Background, Serving Front. On the basis of personalized fitness needs of fitness consumers, health management system will be designed and developed completely. Scientific fitness information database will be built, and talents resources advantages of universities will be used completely to create excellent background to serve hundreds of millions fronts.

On-Line Service to Promote Communication. 24-hour On-line service for 365 days, websites appointment counseling and websites fitness skills live broadcast will be established.

The Operating Mechanism of Scientific Fitness Service

The Service Mechanism of Scientific Fitness Service Platform

Facing people with slow diseases, inferior health and fitness hobbies and on the basis of consumers’
needs, the platform will assess constitution situation and motor function to attain data relevant to constitution health. Websites platform will be used to uploaded data. Experts and scholars of service platform will trace and analyze uploaded data, and make scientific, economic, effective and personalized health guidance strategies on the basis of constitution health situation and fitness interests and hobbies. The strategies include exercise prescription, nutrition prescription, psychology prescription or rehabilitation prescription. 24-hour on-line live guidance will be carried out via characters, videos, data-connecting and data-coping and so on; At the same time, experts and professional coaches at the service platform will provide correct sport gesture guidance via websites videos terminal. Finally, people can strengthen their physiques, get sick less and late and get healed before illness. (Figure 4.)

Figure 4. The Service Mechanism of Scientific Fitness Service Platform.

**Financing Mechanism of Scientific Fitness Service Platform**

The mode of governments and social capital cooperation (Private–Partnership–Public) will be used to attract social capital investing with the aim of establishing an organic integration of government, society and market. At the early stage of construction, construction unit invests construction funds, and attracts social welfare institutions’ donation input and private and industry foundation fund investment; It will accept other units’ commissioned research and development funds. After the initial operation period of cultivation, it will further refine and improve the construction scheme, promoting and deepening the reform of institutional mechanisms, aiming to attain construction funding support (such as the State Sports Administration of science and fitness demonstration area project, provincial boutique fitness project, the Sports Industry Guide funds) for science and fitness services platform.

**Resource Sharing and Opening Mechanism of Scientific Fitness Service Platform**

At the beginning of construction, the construction unit is invested, and the public welfare mode is adopted to operate, and the service front end of the access service platform is provided for free; In the middle of construction, it will try to carry out commercial operation for oriented high-end part of chronic disease and customers; In the late of construction, it will resort to the market as the leading, and the service-outsourcing is adopted to carry out the commercial operation.

**Collaborative Mechanism of Scientific Fitness Service Platform**

The coordination mechanism of the service platform is to coordinate the process or the way of coordinating two or more behavior subjects to complete a goal. It will strengthen the service platform and the front end of the service, the front end of the service and the front end of the interactive links, and promote cooperation and enhance the level of platform services and capabilities.
Reinforcement Mechanism of Scientific Fitness Service Platform

The platform will establish and improve its reinforcement mechanism, and coordinate the interests of the participating units. It will mobilize and play the active role of the cooperative units in the construction and operation of the platform fully. It can form a series of positive feedback circles in the development processing. Not only can improve the service level and quality of service platform, but also can improve operational efficiency through proper guidance and system design. It will form positive relations interaction among different actors.

The Performance Evaluation Mechanism of Scientific Fitness Service Platform

The platform will explore the evaluation system which is directed by the contribution to the technical services and market. It will make full use of science and fitness services platform which play roles in fitness scientific research, scientific health management, talent cultivation, decision support service and knowledge education. It will set up a service platform for scientific fitness assessment committee. With the aim of promoting the construction, It will carry out the "self-evaluation" and "evaluation by others" actively to carry on the appraisal to the platform goal completion situation, the construction operation situation, the fund use, the service ability and so on.

The scientific fitness platform centers on the necessity of the public fitness, with the goal of improving the public’s scientific fitness consciousness and their scientific fitness level. It is established and developed by following some specific structure principles. Its thought of application system essentially grasps the system organization and operation mechanism. It should establish the organic integration of prominent government, society and market tripartite resources and promote "science and technology Huimin" policy, scientific research into mass sports.

References


