

Research Article

Construction of Smart Sports in Colleges and Universities: Influencing Factors, Design Ideas, and Model Choices

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Objective. As an important content of the modernization of college physical education, the intelligent physical education in colleges and universities is a main form of the progress and development of college physical education. The authors studied the influencing factors, design ideas, and model choices of the construction of smart sports in colleges and universities, aiming at promoting the reform, innovation, and information management of college sports. **Methods.** The related problems of the construction of intelligent sports in colleges and universities were studied by the methods of literature and logical analysis. **Results.** Smart sports in colleges and universities is a new type of college sports based on information technology. At present, the construction of smart sports in colleges and universities is still in its initial stage, and there are many problems. The construction of smart sports in colleges and universities not only highlights the charm of college sports and expands and enriches the connotations of college sports but also shapes the brand image of college sports with health. The influencing factors of the development of smart sports in colleges and universities mainly include macro development environment, decision-makers' behavior, and government support. In the process of the construction of smart sports in colleges and universities, the overall planning and design should follow certain overall ideas and specific ideas, and new development models of smart growth, demand, integrated governance, and integrated development can be chosen. **Conclusion.** As a refined management method of college sports, smart sports in colleges and universities is of great significance to innovate and deepen the reform of college sports. We must always pay attention to the development dynamics of relevant factors and understand the development trend of smart sports in colleges and the change of influencing factors, so as to seize the opportunity, timely adjust and change the development model of smart sports in colleges and universities, accurately improve the physical health of college students, and promote the intelligent development of college sports.

1. Introduction

With the improvement of mechanization, electrification, and automation of the society, the popularity of modern means of transport, as well as the development of information technology, college students engaged in all kinds of manual labor opportunities, and time is greatly reduced; combined with the academic burden, social competition and environment change bring them pressure increases, along with the college students having less time for sports activities. Because of the influence of high intensity pressure and insufficient physical exercise, there are huge hidden dangers

in the body and mind of college students. According to relevant data, the physical health of college students has been declining, and most of them are in subhealth condition. With the in-depth development of national fitness and sunshine sports in China, as well as the issuance of a series of documents to promote the physical health of college students, more and more college students gradually realize that physical health is the root of everything, and physical exercise is a positive healthy lifestyle.

College sports, as an important part of college education, are the core way for college students to get healthy and also a main form of campus culture. At present, there are some

problems in Chinese college physical education, such as the reduction of the evaluation standard, the dislocation of the physical education curriculum reform, and the decline of students' physical quality. There is still insufficient attention to physical education in schools; in addition to teachers' inaccurate positioning of physical education classes, students do not know how to practice independently, sports competitions still only cover a small part of the population and other problems, and there is also insufficient promotion of physical health, will temper, and personality integrity of college students. In the face of these problems, we should consider the value and responsibility of university sports from the aspects of strengthening and improving the work of university sports, innovating the development model of university sports, and deepening the reform of university sports, so as to eliminate the confusion of university sports, solve the problems of university sports, and seek the sustainable development of university sports [1]. With the rapid development of next-generation information technologies such as the Internet of things, cloud computing, big data, and artificial intelligence, Sam Palmisano, CEO of IBM, put forward the concept of "smart planet" at a United States business leaders roundtable in January 2009. When "smart planet" spread to China and extended to sports, the concept of "smart sports" appeared, and when it extended to college sports, it became "smart sports in colleges and universities" [2]. It is the common choice of most universities in the world to combine university sports with information technology. With the help of information technology, most colleges and universities have produced a batch of new college sports which realize the transformation and development of college sports by information technology, namely, college smart sports, which has also become an important driving force to improve the soft power of college sports. To promote the development and transformation of university physical education through information technology is one of the main experiences of the development of university physical education in the new information age, which is used by more and more universities.

Smart sports in colleges and universities refers to the widespread use of the Internet of things, cloud computing, mobile Internet, big data, artificial intelligence, and other new generation information technologies to improve the automation and intelligence level of university sports resources, planning, construction, management, service, and production, so as to make the operation of university sports more efficient and agile with low carbon. Intelligent physical education in colleges and universities is the advanced stage of college physical education informatization after electronic college physical education and also the important direction of college physical education informatization transformation and development [3]. Smart sports in colleges and universities not only includes sports venues, running tracks, fitness greenways, and other infrastructure but also includes a new generation of information infrastructure, smart government, smart teachers and students, and smart sports development environment. With the theme of "intelligent + sports," it makes extensive use of information technology to carry out intelligent teaching, training, after-

school exercise and competition, and other sports activities and accurately provide corresponding sports culture, sports facilities, and sports services. For example, smart teaching, smart fitness, smart venues, and other programs enable students to "predict" before class, "perceive" in class, and "detect" after class and realize the three functions of preclass multimedia microcourse electronic resource preview, in-class interactive teaching, and after-class microcourse sports guidance [4]. Smart sports in colleges and universities aims to more accurately meet the needs of college students for physical exercise, physical and mental health, and pleasure. It can be predicted that the smart sports in colleges and universities will become the focus of the informatization construction of college sports in China and the main trend of the development of college sports at present and even in the future, and it is of great significance to the physical and mental development of college students and the connotation construction of college sports. However, the construction of intelligent sports in colleges and universities is still in its infancy, and there are still many problems. The main problem lies in its late start, lack of development experience, and heavy reliance on the development model of other industries. In addition, there is less investment in smart sports in colleges and universities, which is often poorly made and unsatisfactory in planning, management, service, and products. In addition, the service form is single, the utilization rate of college students is low, the derivative industry of theme products has not yet formed, and the hardware equipment and management of college sports cannot meet the needs of college students. These problems have seriously hindered the further development of university sports and information technology industry.

Intelligent sports in colleges and universities is an important part of college sports, and its construction quality affects the fine management and connotative development of college sports. Smart sports in colleges and universities based on the new generation of information technologies, such as big data, internet, and artificial intelligence, not only provide accurate sports practice places for college students, but also college students can take physical exercise anytime and anywhere through smart equipment and informationized sports resources to accurately improve their physical health. In terms of college sports, intelligent college sports can enhance the vitality of college sports, improve the attraction of college sports, and promote the high-quality development of college sports [5].

In short, as a product of the integration of tradition and modernity, smart sports in colleges and universities is an important way to promote the development and progress of college sports and sustainable development and an important measure to promote the modernization of college sports governance system and governance capacity. It plays an important role in establishing the informatization brand and modern image of college sports. It is a characteristic symbol of college sports culture, greatly promotes the development of college sports and information technology industry, and improves the ideological connotations of college students' lifelong sports, becoming a new direction of college sports informatization, health, and sustainable development.

Therefore, we should strengthen the research on the theory and methods of smart sports and promote the domestication of related products needed for the construction of smart sports in colleges and universities [6].

2. Methods

At the present stage, faced with many problems in the development of smart sports in Chinese colleges and universities, on the basis of summarizing and analyzing previous studies on smart sports education, the authors mainly used literature and logical analysis, combined with the background of smart governance era, and took new information technology as an important support. Actively explore the influencing factors, design ideas, and model choices of intelligent sports construction in colleges and universities, so as to provide an important theoretical basis for promoting the intelligent construction, modernization of governance capacity, and high-quality development of university sports.

First of all, this study explains the historical background and important significance of the construction of smart sports in colleges and universities, laying a theoretical foundation for the construction of smart sports in colleges and universities and enriching the related research fields of sports in colleges and universities.

Secondly, by analyzing the influencing factors of the construction of smart sports in colleges and universities, the paper tries to explore the influencing factors of its development, so as to provide reference for further searching for the design ideas of smart sports construction.

Finally, the paper discusses the model choices of strengthening the construction of intelligent sports in colleges and universities, providing theoretical and practical discussion for the exploration of the new mode of intelligent sports construction in colleges and universities.

3. Results

3.1. Influencing Factors of Smart Sports Construction in Colleges and Universities. Regarding influencing factors of smart sports construction in colleges and universities, intelligent sports in colleges and universities is a sports information resource built through information technology, aiming to provide convenient sports culture resources such as intelligent sports teaching resources, intelligent sports facilities, online competitions, and virtual sports for college students. Therefore, its emergence and development are affected by some factors [7]. Based on a large amount of field investigation data and existing research results of intelligent sports in colleges and universities, this paper puts forward a three-factor system for the sustainable development of intelligent sports in colleges and universities [8], as shown in Figure 1.

3.1.1. Macro Development Environment. Macro development environment refers to the external environment required by the development of smart sports in colleges and universities, including the economic strength of colleges and universities,

the demand of smart sports for college students, and the perception of horizontal competition of smart sports experience in colleges and universities. The economic strength of colleges and universities is a major factor affecting the construction of intelligent sports, which deeply affects the whole environment and later development of intelligent sports in colleges and universities. It is mainly manifested in the following aspects: the construction scale, intelligence degree, maintenance of facilities and equipment, system renewal, and development of smart sports in colleges and universities are restricted by funds. For example, the universities with better intelligence sports construction in China are mainly distributed in the relatively developed pearl River Delta, Yangtze River Delta, Bohai Rim, and Chengdu-Chongqing economic circle with relatively strong economic strength, which is determined by economic level. In terms of the demand for smart sports of college students, the impact of economic strength of colleges and universities on smart sports is mainly reflected in the coverage of free wireless network and the construction of smart sports facilities. Generally speaking, colleges and universities with better construction of smart sports have a wide coverage of free wireless campus network and complete facilities of smart sports venues. The comprehensive radiating force of intelligent sports in colleges and universities is the influence on surrounding university sports, including the development level of university sports, sports information resources, and sports culture. It will affect the attraction radius of intelligent sports in colleges and universities, that is, the development degree of intelligent sports in colleges and universities. The experience perception image of smart sports in colleges and universities refers to the overall feeling of college students in the process of using smart sports in colleges and universities, including hardware and software. Hardware refers to the basic equipment, architectural design, and environment of intelligent sports in colleges and universities, while software refers to the humanistic atmosphere, including college sports atmosphere and service attitude. It reflects the characteristics and comprehensive quality level of the whole college smart sports as college sports and is the overall impression of college students and foreign students on smart sports and especially has an important influence on the decision-making behavior of college students' smart sports needs.

3.1.2. Behavior of Decision-Makers. On the basis of macro development environment, investment decision behavior and government support behavior will essentially determine the microenvironment and specific planning and design of smart sports in colleges and universities. According to F. Herzburg's two-factor theory, the guarantee factor and the incentive factor are the two major factors to promote the survival and development of intelligent sports in colleges and universities. Among them, the former can only maintain survival, while the latter can establish and maintain long-term competitive advantages of intelligent sports in colleges and universities and promote the development of intelligent sports in colleges and universities. So, the behavior of decision-makers has a direct impact on the smart sports in

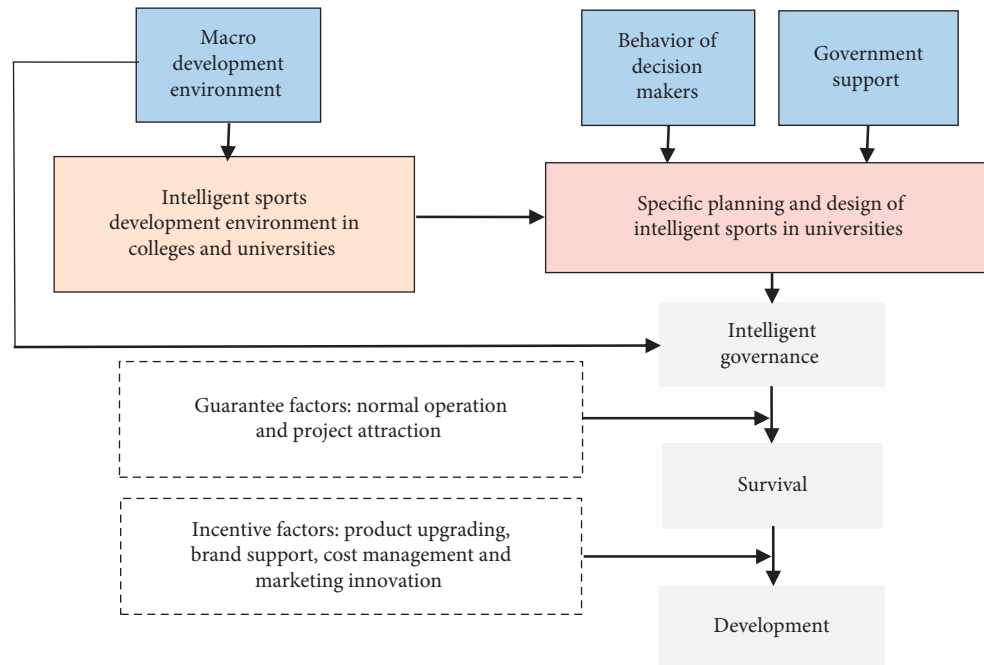


FIGURE 1: Main influencing factors of smart sports construction in colleges and universities.

colleges and universities, and they are directly involved in both major issues and specific issues and decisions. For example, there are big problems related to the survival and development of smart sports in colleges and universities, such as the implementation direction, development model, and operation strategy, as well as the specific design decisions of smart sports in colleges and universities, the implementation of smart sports process management, college students' sports incentive mechanism, and sports management, and other specific problems. The decision-makers are the indicators of smart sports in colleges and universities, and their decision-making behaviors will directly affect the construction and development of smart sports in colleges and universities. Therefore, the decision-makers should constantly improve their ability to grasp the development trend of smart sports, and relevant personnel should also perform supervision and suggestions to decision-makers.

3.1.3. Government Support. The construction of smart sports in colleges and universities is a huge investment. Correspondingly, smart sports in colleges and universities can also bring about considerable benefits to college sports and universities. Therefore, the government should strongly support the construction of smart sports in colleges and universities. In recent years, online teaching, workouts, and games have been emerging as college sports' response to COVID-19. Therefore, the Chinese government should actively build intelligent sports in colleges and universities. First of all, the government should point out the right direction, actively create a good intelligent sports environment, and lay a foundation for the intelligent and accurate development of college sports, so as to reform and innovate

college sports. For example, the government should guide and encourage the construction of smart campus sports in colleges and universities, increase investment in smart sports in colleges and universities, strengthen the construction of smart sports facilities, and promote the formation of the sports concept of "smart sports, health first, accurate improvement, and charming life" in universities and so on. Secondly, support should be given to fund, technology, policy, social security, and other aspects to promote the large-scale construction of smart sports in colleges and universities, such as strengthening the research and development of smart sports platform in colleges and universities, improving the smart sports system and relevant laws and regulations in colleges and universities, actively introducing foreign advanced models and construction experience, and cultivating talents in this field. At the same time, increase investment, expand the scale of smart sports in colleges and universities, and improve its service quality. In addition, attention should be paid to the development of intelligent sports industry in colleges and universities to create unique intelligent sports in colleges and universities.

3.2. Design Ideas of Smart Sports Construction in Colleges and Universities. At present, the new generation of information technology, such as the internet, big data, cloud platform, and artificial intelligence, has penetrated into all aspects of society. We should make full use of the new information technology to build an intelligent service platform to provide modern public storage, computing and management services for the development of college sports, and at the same time, for teaching, exercise, training, and competition to provide integrated intelligent services. It is an important way and urgent demand for the modernization, equalization,

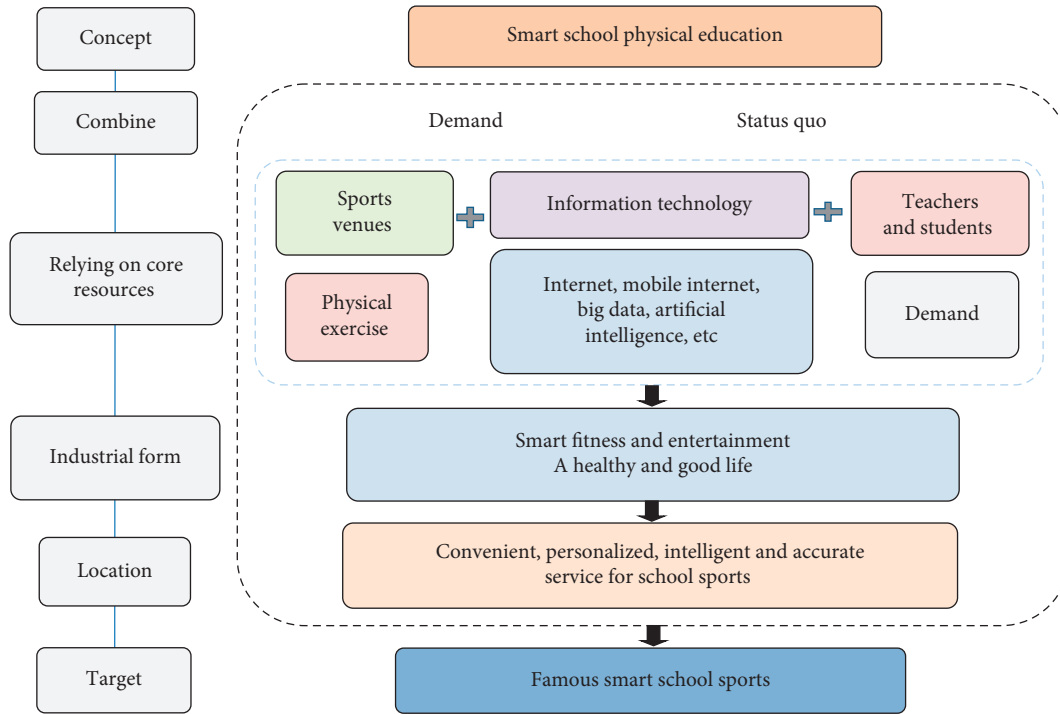


FIGURE 2: General idea of smart sports construction in colleges and universities.

sharing, and high quality development of college sports. In order to realize the goal of intelligent sports construction in colleges and universities, we should follow certain ideas.

3.2.1. General Ideas. Intelligent physical education in colleges and universities is to promote the sharing of high-quality college physical education information resources and improve the quality and level of college physical education through the application of a new generation of information technology. To put it simply, the intelligent physical education in colleges and universities refers to the intellectualization of the cause of college physical education, which is the advanced stage of the informationization development of college physical education. In order to realize the construction of smart sports in colleges and universities, we should, on the premise of long-term overall planning and construction, establish a new concept of smart sports ecosystem, implement the cooperative development system of government, enterprise, university, and society, construct a planning and management system, and adhere to the development concepts of smart growth, market demand, integrated management, and integrated development. In a word, we should focus on improving the functions of intelligent sports in colleges and universities and the refined management of university sports, comprehensively improve the carrying capacity of intelligent sports in colleges and universities, and promote the high-quality development of intelligent sports in colleges and universities. In general, the construction of smart sports in colleges and universities should combine the sports needs of students and the development status of smart sports in colleges and universities and rely on core resources and culture to build smart sports

in colleges and universities into famous smart sports for sports, health, and entertainment. See Figure 2.

3.2.2. Specific Ideas. To achieve success in the construction of smart sports in a university, the key is to have clear overall construction ideas and guiding principles, and, at the same time, it cannot be separated from specific ideas. The construction of intelligent sports in colleges and universities should adhere to the specific ideas of leading ahead, improving quality, intelligent management, and green health.

- (1) **Top-level design:** Adhere to leading and planning smart sports in colleges and universities. Adhere to the planning first, complete the spatial planning of university sports with a high starting point and high standard, scientifically plan the spatial layout of stadiums and gymnasiums, and strive to create modern university smart sports with perfect functions, active people flow, and ecological and environmental protection. We will strengthen the design of smart sports in colleges and universities and build a smart fitness space for college students and an ecological space system for smart sports in colleges and universities. We will strengthen the management of smart sports venues in universities and colleges, explore ways to revitalize idle sports venues, and encourage the use of inefficient and idle sports venues through outsourcing and opening them to society with compensation.
- (2) **Brand construction:** Adhere to quality improvement to build smart sports in colleges and universities. The “dual training of smart sports in colleges and

universities” will be fully implemented to improve the basic weakness of smart sports in colleges and universities and enhance the comprehensive bearing capacity of smart sports in colleges and universities. We will continue to implement the project to smooth the network of stadiums and gymnasiums, accelerate the construction of key smart sports projects in colleges and universities, and promote the smart construction of stadiums and gymnasiums to make it more convenient for college students to access and reserve stadiums and gymnasiums; steadily promote the updating and upgrading of smart sports in colleges and universities, strengthen the renovation of old stadiums and gymnasiums, and improve the construction of key infrastructure projects such as stadium facilities and beneficent projects of smart sports in colleges and universities; vigorously promote the smart construction and renovation of smart sports in colleges and universities, such as water, electricity, and air conditioning; optimize the layout of green space around stadiums and gymnasiums, build “green lung” of smart sports in colleges and universities, and implement construction projects of green stadiums and greenways; and actively establish the leading smart sports in colleges and universities in China, increase investment in infrastructure, expand the scale of smart sports in colleges and universities, increase the population of smart sports, and speed up the high-quality development of college sports culture.

- (3) Smart management: Adhere to the concept of smart management to promote smart sports governance in colleges and universities and adhere to the humanized, law-based, refined, intelligent, normalized, and grid smart sports management concept of colleges and universities and improve the ability of service support. On the one hand, the smart sports management platform has been introduced to promote the construction of smart sports in colleges and universities, and information infrastructure has been constantly improved to make smart sports in colleges and universities more orderly, convenient, safe, and accurate. At the same time, the management system of smart sports in colleges and universities should be optimized, and the executive force should be advanced to effectively improve the management level of smart sports in colleges and universities. On the other hand, actively introduce and cultivate sports service enterprises with standard operation, good reputation, and excellent service, improve the management mechanism of smart sports in colleges and universities, and constantly improve the service level of smart sports in colleges and universities and college students’ satisfaction. Third, continue to consolidate the innovative achievements of smart sports in colleges and universities, implement social

purchase service management of sports teaching, training, exercise, events, and venues, and further improve the image of smart sports in colleges and universities.

- (4) Development trend: To build green and healthy characteristic intelligent sports in colleges and universities. In the case of not destroying the campus ecological environment, unified planning, rational layout, design based on information technology “health forest, ecological forest, green road, sports wind,” and other characteristics of sports functional area, the development of college students needs activity space and sports facilities to serve the needs of college students fitness entertainment. The construction of intelligent sports in characteristic colleges and universities should follow the principles of scientific exercise, rich resources, novel content, and intelligence, so as to perfect the service of intelligent sports in colleges and universities. For different levels of smart sports in colleges and universities, it is necessary to consider the object of use and scope of service according to relevant norms and combine the characteristics of the site to make a design scheme with relatively perfect functions and local characteristics. For example, some self-service sports facilities can be provided for those who want to exercise on the campus of colleges and universities, with self-service machines to introduce sports items, sports technology, how to practice, matters needing attention, etc., to provide personalized sports services for college students to exercise independently. As per guidelines for intelligent sports design in colleges and universities, based on the above common design concepts, we should run through such guidelines or ideas in the design of intelligent sports in colleges and universities to meet the needs of college students for intelligent sports in colleges and universities.

3.3. Model Choices of Smart Sports Construction in Colleges and Universities. The construction of intelligent sports in colleges and universities has a certain life cycle and needs continuous improvement and development. However, with the development of modernization, the demand for intelligent sports in colleges and universities is becoming stronger and higher. In order to better meet the needs of college students, intelligent sports in colleges and universities need to be constantly updated and improved. Updating and upgrading the existing ways mainly have three kinds: reconstruction or further development, the comprehensive improvement, and function change have some disadvantages, and their focus on the wisdom of colleges and universities sports artificial environment, facilities, venues such as the construction of material system, the activity system and service system, support system, and other factors is relatively lightly and does not conform to the wisdom of

colleges and universities sports promotion. The renewal model of smart sports in colleges and universities consists of four parts: smart growth, market demand theory, integrated development, and integrated governance of smart sports in colleges and universities. Among them, smart growth guides the renewal and construction of smart sports in colleges and universities, demand theory puts forward requirements for it, integrated development provides a path for its intelligence, and integrated governance promotes its management [9]. See Figure 3.

In a word, intelligent sports in colleges and universities is a complex system, which has a close relationship with various elements of college sports. The transformation of the development model of intelligent sports in colleges and universities must be connected with the development of intelligent sports in colleges and universities.

3.3.1. Smart Growth Model. The “smart growth” theory was put forward by the American Planning Association in the late 1990s. It was originally intended to solve many problems caused by the massive urban expansion in the United States, such as the reduction of open space, environmental degradation, massive waste of land resources, and lack of community affection. With the development of this theory and the enhancement of sustainable development requirements, “smart growth” has gradually been applied to other fields, and smart sports in colleges and universities is one of them. According to the theory, ten basic principles should be paid attention to in the construction of intelligent sports in colleges and universities [10]. See Figure 4.

Adopt compact sports architecture design model to avoid waste of building area. Build a variety of fitness space and entertainment space, equipped with perfect sports service facilities, and expand the applicability of the campus. Strengthen the awareness of campus sports, and build strong sports characteristics with personality and attractive campus. Create walking campus, protect the environment, save energy, encourage college students to do more outdoor activities, and improve physical fitness. Protect open spaces such as unused stadiums, campus scenery, and historical sites. Strengthen the renovation and renewal of existing stadiums and gymnasiums, and reduce the demolition and reconstruction or new construction as much as possible. Improve green, low-carbon, ecological, and environmental fitness, and give priority to walking and cycling paths. Pay attention to the predictability, fairness, economy, and sustainable development of development decision-making. Encourage multi-stakeholder participation and cooperation among governments, universities, enterprises, and other stakeholders. Smart growth is to realize the benign and intensive development of the economy, culture, and ecology of smart sports in colleges and universities. In the transformation of the development model of smart sports in colleges and universities, we can also refer to the above principles.

3.3.2. Demand Model. Demand is the direct motivation of college students’ sports participation and consumption, so the planning and construction of smart sports in colleges and universities should fully consider the sports needs of college students. With the development of human society and the maturity of college students’ consumption concept, college students’ demand for college sports has changed from skimming extensive sports to green, healthy, convenient, and accurate intelligent sports, and college smart sports is in line with this demand. Maslow’s hierarchy of needs includes physiological needs, safety needs, belongingness and love needs, respect needs, and self-actualization needs from low to high. See Figure 5.

Sports are the best means to achieve self-challenge and self-transcendence, so sports belong to advanced needs. When the living standard of college students reaches a certain height, they will need a deeper sense of happiness, peace, and health, as well as the rich sense of inner life, which is a general health trend and a trend of breaking away from psychological illness. Therefore, this theme should be fully reflected in the design process of smart sports in colleges and universities, so that college students can get close to nature and highlight themselves, so that college students can temporarily avoid responsibilities and obligations, get a rest, eliminate business and panic in daily life, expand physical skills and abilities, and release pressure and tension, in addition to avoiding loneliness and interacting with classmates to enhance their feelings, so as to gain physical and mental well-being and promote the healthy development of both body and mind.

3.3.3. Integrated Governance Model. Intelligent physical education in colleges and universities is the product of the intersection and combination of college physical education and information technology. Structurally speaking, the theme integrates teaching, exercise, competition, and entertainment, which should meet the needs of people of different ages as far as possible. From the perspective of content, intelligent sports in colleges and universities can meet the sports needs of various types of college students because of its complex system, various contents, and diversified projects. Therefore, intelligent sports in colleges and universities must have a complete set of service systems and governance models. Strategic governance is a more practical governance model at present and also the inevitable trend of the long-term development of the theme. In essence, colleges and universities seek to establish and maintain sustainable competitive advantages based on the future situation. The existence and development of intelligent sports in colleges and universities are influenced and restricted by many factors, which are changing constantly. In order to better adapt to the changes of external environment, intelligent sports in colleges and universities must pay more attention to the play of internal resources and ability advantages and determine the development strategy on this basis. The strategic governance of intelligent sports in colleges and universities includes a comprehensive sports

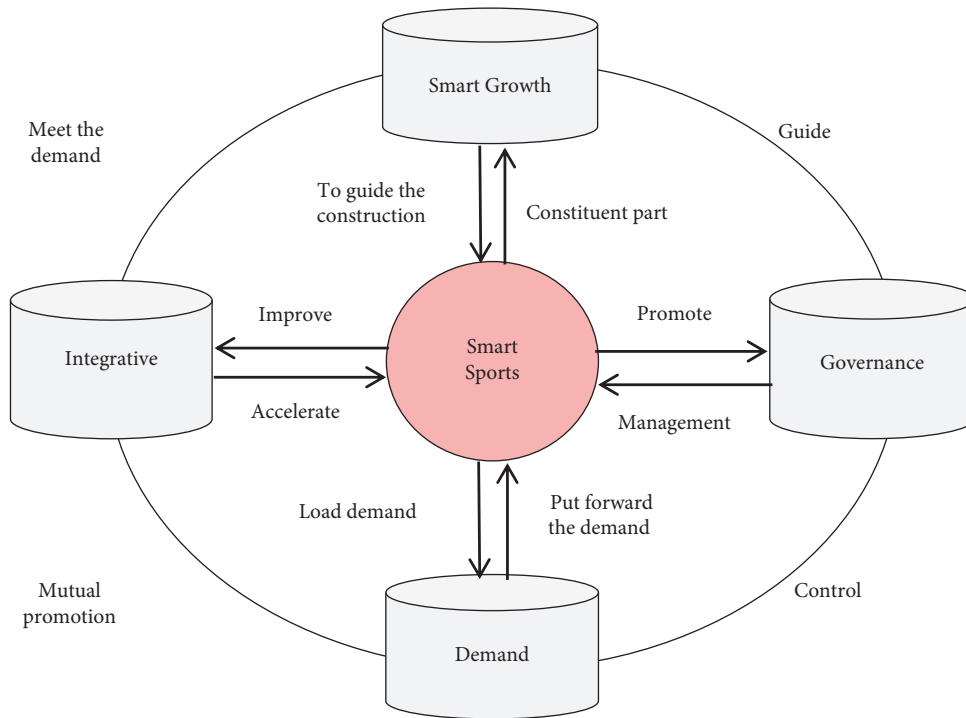


FIGURE 3: Development model of smart sports in colleges and universities.

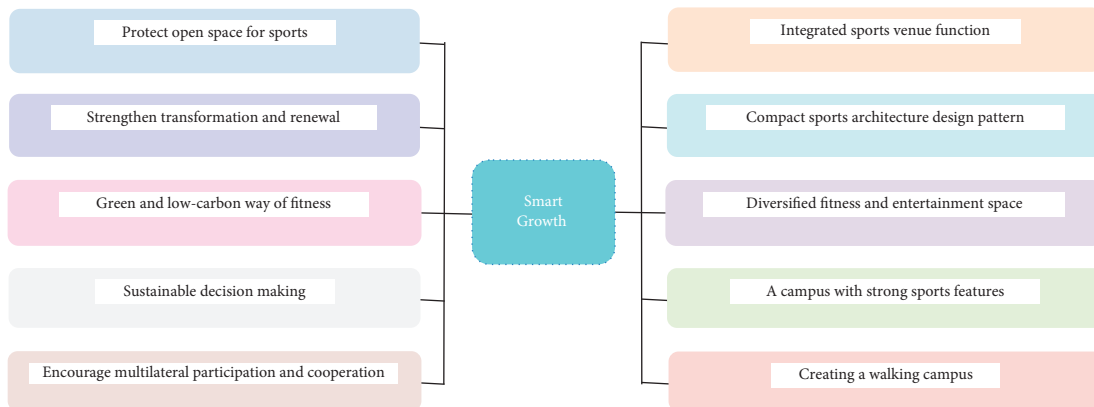


FIGURE 4: Smart growth model.

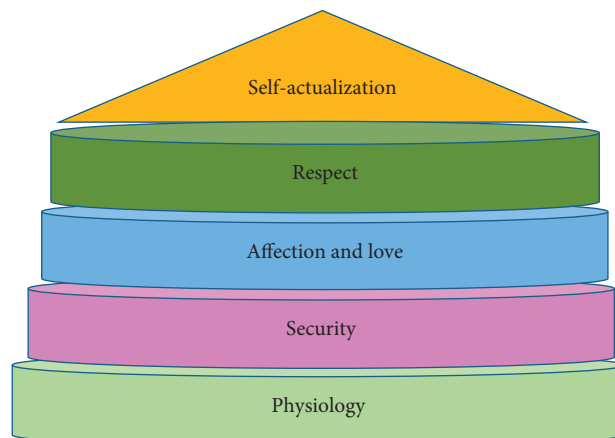


FIGURE 5: Maslow's theory of demand.

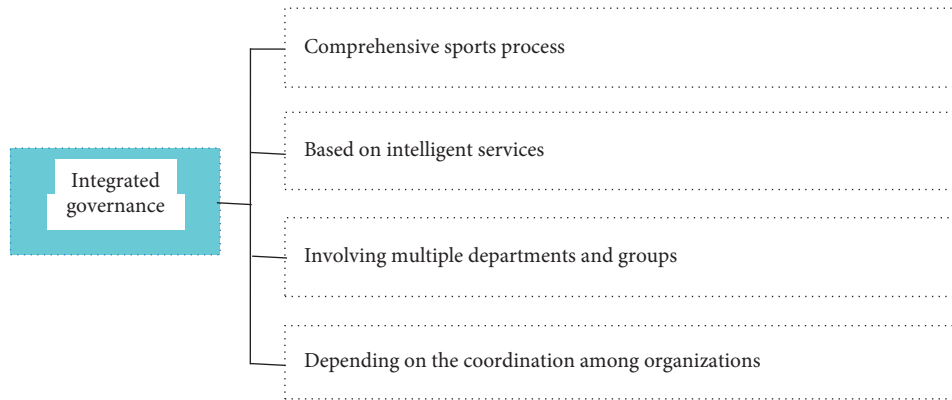


FIGURE 6: Integrated governance theory.

process, which is based on intelligent service, involves many departments, and depends on the mutual activities of various organizational elements. See Figure 6.

These factors and their changes should be fully considered in the implementation of smart sports governance in colleges and universities. We can use SWOT to analyze the opportunities and threats of the external environment, as well as the internal advantages and disadvantages, which is more scientific and important in the integrated governance of college sports. According to SWOT analysis, the construction of smart sports in colleges and universities can choose general competitive strategies such as cost leadership, content differentiation, personalized service, or demand concentration. With the development of smart sports in colleges and universities and the change of college students' sports needs, the managers and decision-makers of smart sports in colleges and universities must always grasp the dynamics and determine the correct goals for further development, that is, decide how to develop in the next step and how to expand service functions on the existing basis.

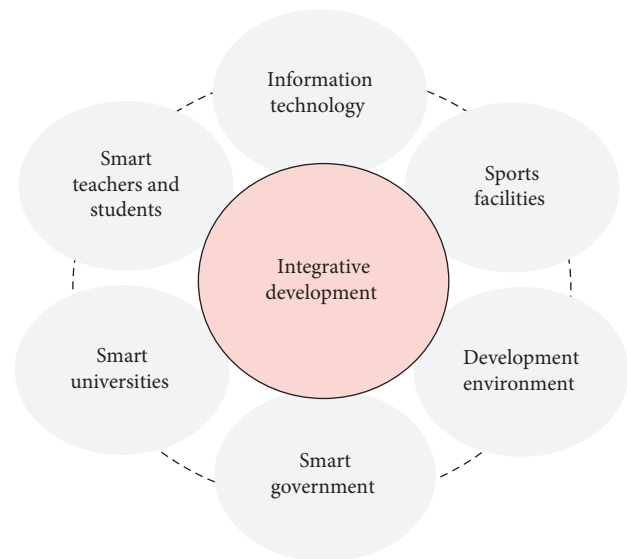


FIGURE 7: Integration innovation development theory.

3.3.4. Integrated and Innovative Development Model. Each element of intelligent sports in colleges and universities is complementary to each other. Its development must rely on these basic elements, such as information technology, stadium facilities and intelligent sports development environment, and its development is inseparable from related elements, such as the government, colleges and universities, teachers and students. On the contrary, the development of smart sports in colleges and universities can also promote the development, optimization, and improvement of all basic elements, and bring economic, ecological, cultural, and convenient benefits to all relevant elements (see Figure 7).

Intelligent sports culture in colleges and universities has strong cultural characteristics of integration, which is often impressive. Many college students are attracted by its characteristic culture, which benefits from the organic combination of sports culture and information technology. In the transformation of smart sports in colleges and universities, sports culture and new information technology should be fully integrated, mainly reflected in three aspects. On the one hand,

relying on the infrastructure of smart sports in colleges and universities and the cultural deposits of sports, it can be comprehensively promoted and used to realize the intelligent interaction between college sports and college students. On the other hand, it realizes the authenticity of sports culture and makes it accepted by college students. In the development of intelligent sports platform in colleges and universities, the theme of "smart + sports" is closely centered, and the intelligent sports in colleges and universities should be made explicit or a baptism for the body and mind of college students. In addition, activities should also be integrated with cultural appreciation, sports entertainment, and personal participation, so as to "combine teaching with fun and learning with body," highlight the connotation of intelligent sports culture in colleges, and promote the construction of college sports culture. Strengthen the development of derivative products and compound products of intelligent sports in colleges and universities, cooperate with information technology enterprises, film and television media enterprises, and sports goods manufacturers to produce practical products and services, and continuously attract the participation and use of potential college students. In

the transformation of the development model of smart sports in colleges and universities, we should keep pace with the Times, inherit and carry forward the tradition, and combine with the emerging sports culture, excellent traditional sports culture, and new information technology, especially the excellent local traditional sports culture with characteristics, which should be fully taken into account in the construction of smart sports in colleges and universities.

4. Conclusion

As an important part of the modernization of college physical education, intelligent sports in colleges and universities is a main form of the progress and development of college physical education. At present, the construction of smart sports in colleges and universities is faced with great challenges but also hidden rare opportunities. From the perspective of relevant theory and practice, macro development environment, decision-makers' behavior, and government support affect the construction and development of smart sports. In the process of the construction of smart sports in colleges and universities, the overall planning and design should follow certain overall ideas and specific ideas, and new development models of smart growth, demand, integrated governance, and integrated development can be chosen.

With the improvement of college students' living standard, quality of life, and health awareness, the proportion of sports in college students' daily life is gradually increasing, and college students' requirements for it are becoming higher and higher. As a new product of college sports in the information age, intelligent sports in colleges and universities is of great significance to the innovation of college sports and the deepening of college sports reform. With the rapid development of information technology, the development of intelligent sports in colleges and universities is also facing great challenges. Because of its characteristics of intelligence, convenience, and precision, intelligent sports in colleges and universities is favored by college students, so it needs to keep pace with the Times. We must focus on intelligent development trend of related factors, such as information technology, government, schools, teachers and students, and environment, etc., to understand the development trend of intelligent sports in colleges and universities and its influencing factors, so as to seize the opportunity to adjust and change the development model of intelligent sports in colleges and universities, therefore to accurately promote college students' physical health and promote the intelligent development of college sports.

Data Availability

The datasets used and analyzed in this study are available from the corresponding author upon reasonable request.

Conflicts of Interest

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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