

THE MODEL FOR DEVELOPMENT RURAL PUBLIC SPORTS SERVICE SYSTEM IN GUANGXI, CHINA

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Abstract

The rural public sports service system is a general term for tangible or intangible sports products or services provided to rural areas for the purpose of meeting the sports public needs of rural residents. With the development of the national strategy of national fitness, the revitalization of rural sports directly affects the long-term development of rural residents. This study uses governance theory, new public management, and new public service theory to explore the relationship between sports service design, sports personnel quality, sports venues and facilities, sports activity organization, service supervision and management, and rural public sports service system, so as to construct a model of rural public sports service system. In this study, rural residents living in six regions of Guangxi for a long time were surveyed, the total of 320 samples, and the quantitative data were analyzed using PLS-SEM. It was found that sports service design, quality of sports personnel, stadium facilities, organization of sports activities, and supervision and management of services positively affect the rural public sports service system model, while the mediating effect and influence mechanism among the variables need to be further investigated. The theoretical model of rural public sports service system can optimize the design of rural public sports services, improve the quality of sports personnel, coordinate the supply of public sports venues and facilities, enrich the organization of sports activities, improve the quality of services, and strengthen the supervision and management of services and other measures to realize the concept of health for all. Secondly, the sports management department should improve the level of service, accelerate the establishment of smooth information channels, use artificial intelligence to obtain the residents' fitness needs, and increase the publicity of the concept of fitness "to cure the disease". Let more and more people spontaneously participate in physical exercise, the real realization of national fitness.

Keywords: Development Model /Service Development/ Rural Public Sports Service/ Sports Service System / Guangxi.

1. INTRODUCTION

The 19th CPC National Congress proposed to implement the rural revitalization strategy, fully implement the national fitness program, accelerate the construction of a healthy China, and strengthen and innovation social governance (Xi, 2017). In 2018, the State Council issued the Strategic Plan for Rural Revitalization (2018 - 2022), stating that the rural revitalization strategy is an important initiative to realize the aspirations of hundreds of millions of peasants for a better life Promoting rural public services to a new level, accelerating the construction of a modern rural governance system, and enriching cultural life in rural areas ("The CPC Central Committee and State Council Issues the Strategic Plan for Rural Revitalization (2018 - 2022), 2018). Guangxi's rural public sports facilities have been fully covered, sports activities and sports events have increased significantly, sports industry projects such as sports complexes and sports towns have

been implemented, and a series of rural public sports service projects have been carried out in an orderly manner. Guangxi's rural public sports services have begun to show results. However, due to the lack of systematic thinking of modern governance, Guangxi's rural public sports service provision has exposed many problems (Huang et al., 2021): single public sports venue facilities, leading to low utilization rate, imbalance between supply and demand of public sports services leading to low participation, lack of democracy in public sports service decision-making leading to supply and demand conflicts; and lagging behind in the construction of the public sports service system, leading to poor operational effects.

By sorting out the factors affecting the development of rural public sports service system in Guangxi, this study constructs a theoretical model to explore the relationship between sports service design, quality of sports personnel, stadium facilities, organization of sports activities, supervision and management of services and rural public sports service system. It aims to provide theoretical support for rural public sports services in Guangxi, focus on solving the practical problems encountered by rural public sports services in Guangxi, help Guangxi's rural revitalization, and realize the in-depth improvement of the sports modernization governance system and governance capacity.

2. LITERATURE REVIEW

2.1 Sports Service Design

The author believes that sports service design is a comprehensive concept that covers the process of planning, organizing, implementing and managing sports activities and sports facilities, and refers to the process of providing quality sports service experiences for individuals, teams and communities. Sports service design consists of two dimensions: sports service content and sports information platform. It is necessary to conduct in-depth research on organizational restructuring, process optimization, service image and other aspects and optimize the design in order to improve service efficiency and service experience (Wang, 2017). British public sports services emphasize rich sports program settings (program) and reasonable prices to improve service quality (Hsu H H et al., 2011). Australian public sports services focus on Secondary Services: information dissemination, venue booking, Number of parking lots, and information collection to enhance the service experience (sport facilities Australasian). The Outline for the Construction of a Strong Sporting Nation proposes the use of new information technologies, such as the Internet of Things and cloud computing, to promote the integration and application of sports venues for event booking, event information dissemination, and business service statistics.

2.2 Quality of Sports Personnel

At the present stage, the low fitness awareness and low scientific fitness literacy of rural residents require sports staff to have a certain sense of responsibility and professional ability to advocate active fitness awareness and disseminate scientific fitness knowledge. The quality of sports personnel covers the necessary qualities and abilities of individuals engaged in different occupations in the field of sports. The thesis identifies social sports instructors and

sports workers as the sports personnel dimension. Human resource refers to the enterprise or group within a certain scope, the identification of the capabilities possessed by the people in the organization, which is a general term for the education, abilities, and skills that have created a contributing role (Lu, 2017). Peter Taylor et al. found that public sports services in the United Kingdom evaluated the quality of the service from the perspectives of receptionists, fitness instructors, and other staff members (Peter Taylor, 2003). Zheng Qi et al. study found that the quality of public sports service staff can be evaluated in terms of professionalism, responsibility, timeliness, neatness of clothing and appearance, and politeness of management service staff services. Kou et al. proposed that the number of service staff configuration, responsibility, professionalism, speech and behavior, appearance and neatness, timeliness and effectiveness can be used as evaluation indexes for the quality of public sports service staff (Kou et al, 2018).

2.3 Sports Venues and Facilities

Residents' fitness must have the support of space as well as the carrier of practice, and tangible public sports facilities are the basic support for residents' satisfaction. By studying and evaluating the spatial accessibility of public sports facilities, it is concluded that the population density, the number of public sports facilities and the degree of developed transportation are the main factors affecting the accessibility metric value of public sports facilities (Wu, 2014). Jin Yinri's research explores the theory and method of accessibility and fairness evaluation of public sports facilities resources, and proposes that the layout of public sports facilities should take full account of the radial area and the number of regional population (Jin, 2017). British public sports facilities use social and economic characteristics as an important basis for judging the parity and inclusiveness of public sports services in the communities where they are located (Liu Y D et al., 2009). Zhang Peng's study considered the evaluation of public sports facilities services from five dimensions such as fitness environment, quality of management personnel, economy, accessibility, and auxiliary services, among which the quality of public sports facilities and equipment, the cleanliness of activity venues, the environment and safety, the cleanliness of rest areas, and the daily maintenance have become important monitoring indicators (Zhang, 2015).

2.4 Sports Organization Activities

The organization of sporting activities is the planning, scheduling and management of activities to promote sport, healthy lifestyles and social interaction at a specific time and place. Wang proposed that national fitness activities help the public understand the value of exercise for their own health, form a healthy lifestyle, and form an autonomous health concept of treating future diseases (Wang, 2019). The Opinions of the State Council on the Implementation of the Healthy China Initiative (Guo Fa [(2019) No. 13]) points out that life lies in exercise and exercise requires science; calls for the provision of targeted exercise and fitness programs or exercise guidance services for different groups of people; and enhances the scientific fitness literacy of the entire nation. Bao proposes to make every effort to promote the development of national fitness programization and competition, to continuously expand the proportion of the population participating in national fitness through programization, and to increase the

stickiness and lifelong participation in national fitness (Bao, 2019). To meet the most basic needs of communities and individuals to improve health and reduce the chances of disease, it is not enough to make those who regularly participate in sports more active, but should improve the motivation of residents who do not participate in physical activity. Wang's found that volunteer services play an important role in the field of public sports services in developed countries (Wang, 2017).

2.5 Service Supervision and Management

Service supervision and management is a systematic approach to managing and monitoring the process of service provision. Improving strategic planning and institutional norms is a prerequisite for the effective provision of public sports services. Service supervision and management is mainly composed of two dimensions: supervision and management. Studies have shown that service supervision and management have a positive impact on public sports services. For example, Liang argues that effective service remediation by government departments has a significant positive effect on improving people's secondary satisfaction, which in turn affects people's satisfaction by influencing perceived equity (Liang, 2012). Yang Ming suggests that the implementation of standardization of public sports services is an important way to achieve performance improvement and evaluation, and is the basis for the equalization of public sports services (Yang, 2022). Wang Li believes that the public service system of national fitness must be institutionalized and standardized to achieve the realization of transparency of public services and standardization of management operations (Wang, 2016). Wang believes that the standardization of national fitness public services is of great significance in promoting the equalization of national fitness public services and improving the quality of national fitness public services (Wang, 2016). Liu Zheng and Dai Jian believe that the legislation of national fitness public service should cover the basic standards, covering subjects, use of funds and responsibilities of governments at all levels of national fitness public service (Liu & Dai, 2016).

In summary, regarding the definition of sports service design, sports personnel quality, sports venues and facilities, sports activities organization, service supervision and management and the constituent departments, there have been studies confirming that the service content, information service, personnel quality, venues, equipment and facilities, events and activities, sports organization, service supervision and management will affect the public sports service, and I mainly focus on the public sports service in rural areas of Guangxi as the object of my research, to explore whether there is a significant effect of the independent variable and the dependent variable time, and to put forward a theoretical model of the public sports service system in rural areas in Guangxi, and to make suggestions and suggestions for the development of the public sports service in the remote rural areas.

2.5 Research Framework

In this study, the theoretical structural equation model (Figure 1 below) was constructed based on the literature review, research objectives and the development of rural public sports services in Guangxi, using sports service design, quality of sports personnel, sports venues and facilities, and organization of sports activities as the independent variables and the rural public sports service system as the dependent variable.

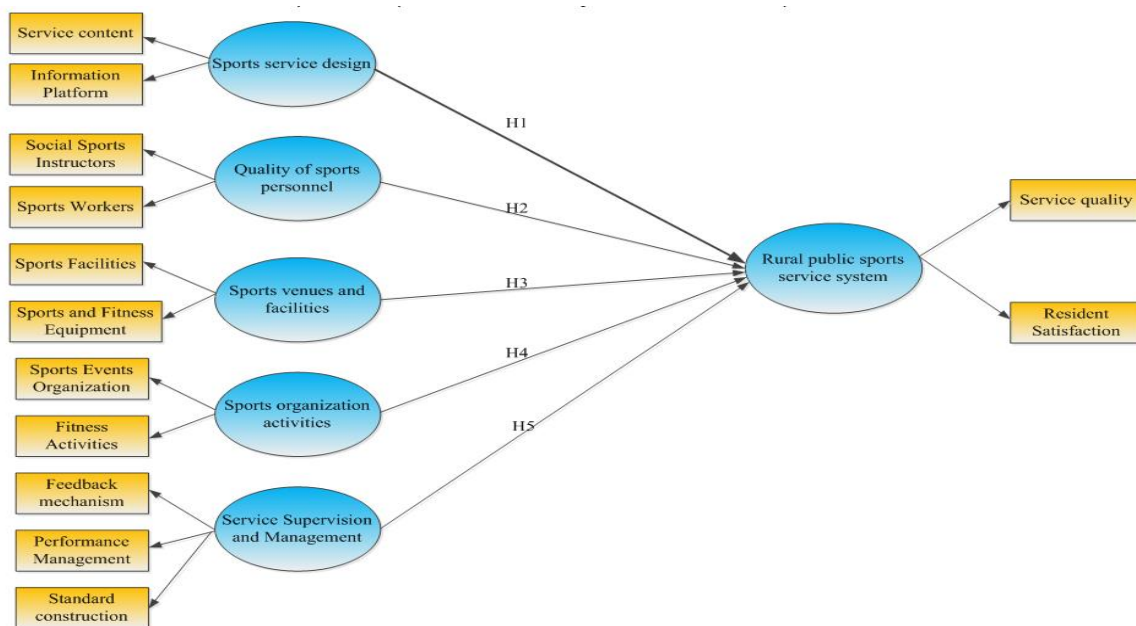


Figure 1: Conceptual Model

3. METHODOLOGY

3.1 Sampling Technology

The researcher used mixed research methods to explain the research design. This study investigated rural residents living in six regions of Guangxi for a long period of time, using a multi-stage technique sampling with a dimension of 20 and a sample unit of $13 \times 20 = 260$, taking into account the situation of the sample missing rate, the researcher increased the sample size by 20%, and the final sample size was determined to be 320 units. A total of 304 valid questionnaires were recovered, representing a 95% validity rate.

3.2 Data Analysis

This study explains the methodology for analyzing the measurement model and structural model of the reflective assembly using a newly developed second generation multivariate statistical technique called PLS-SEM (Partial Least Squares Structural Equation Modeling).

4. RESULTS AND FINDINGS

4.1 Descriptive Analysis

4.1.1 Respondents' Background

As can be seen from the above figure, there are 20.40% more males than females in the sample, with the majority of participants in the age group of 31-45 years old, and the majority of participants residing in the central region of Guangxi.

Table 1: Respondents' background

Name	Options	Frequency	Percentage
Gender	Man	183	60.20%
	Female	121	39.80%
Age	18-30	37	12.17%
	31-45	190	62.50%
	45-60	71	23.36%
	60 and above	6	1.97%
Region	Eastern Guangxi	60	19.74%
	Southern Guangxi	58	19.08%
	Western Guangxi	52	17.11%
	Northern Guangxi	55	18.09%
	Central Guangxi	79	25.98%
Total		304	100%

4.1.2 Sample data

The data from the 56 items of the questionnaire were statistically analyzed, including the number of cases, minimum, maximum, mean, standard deviation, skewness and kurtosis, which were used to verify whether the information obtained from the survey obeyed a normal distribution.

4.2 Path Coefficient Size Significance

The size and significance of the path coefficient are used to evaluate the relationship between research hypotheses. When the sample data are standardized, the path coefficient will be between 1 and -1, and the closer the value is to 1, the more positive the correlation is; while the closer the value is to -1, the more negative the correlation is. By dividing the path coefficient by the standard deviation, the T-value can be further calculated. According to the research conducted by scholars in the past, when the sample size of the study is larger than 30, the quartile of the normal distribution can be used as the critical value, and when the T-value is larger than the critical value, it can be claimed that there is a significant level of significance under a certain degree of error, and the critical value is usually 1.96 (significant), while the T-value is usually 1.96 (significant). Value is usually 1.96 (significant level of 5%), 2.57 (significant level of 1%) and 3.29 (significant level of 0.1%). (Hair Jr et al., 2013). In this study, path coefficients and t-values were calculated by bootstrapping. The number of Bootstrap cases was set to 5000 for the calculation of path coefficients and T-values. The path coefficients of the structural model of this study are shown below and the results are shown in Table 2.

Table 2: Significance of Path Coefficients

	Original sample (O)	Sample mean (M)	(STDEV)	T statistics	P values	2.50%	97.50%
SSD <-> RBSSS	0.304	0.303	0.053	5.712	0.000	0.195	0.405
QSP <-> RBSSS	0.265	0.265	0.042	6.297	0.000	0.180	0.345
SVF <-> RBSSS	0.202	0.202	0.044	4.599	0.000	0.113	0.286
SOA <-> RBSSS	0.144	0.144	0.043	3.380	0.001	0.062	0.229
SSM <-> RBSSS	0.140	0.142	0.039	3.548	0.000	0.059	0.214

From the above table, we can get that in this study, SSD -> RBSSS has a significant positive effect ($\beta = 0.304$, $P < 0.001$), QSP -> RBSSS has a significant positive effect ($\beta = 0.265$, $P < 0.001$), SVF -> RBSSS has a significant positive effect ($\beta = 0.202$, $P < 0.001$), SOA -> RBSSS has a significant positive effect ($\beta = 0.144$, $P < 0.001$), SSM -> RBSSS had a significant positive effect ($\beta = 0.140$, $P < 0.001$), and all five research hypotheses were valid.

4.3 Theoretical Model Results

See Figure 2 for details.

5. DISCUSSION AND RECOMMENDATION

5.1 Discussion

Assuming that H1 is valid, the standardized path coefficient of sports service design on rural public sports service system is 0.304 ($P < 0.001$), indicating that the value of sports service design on the improvement of rural public sports service quality is obvious, and the impact on rural public sports service system is a significant positive effect. Rural public sports service design needs to reflect the people's subject position.

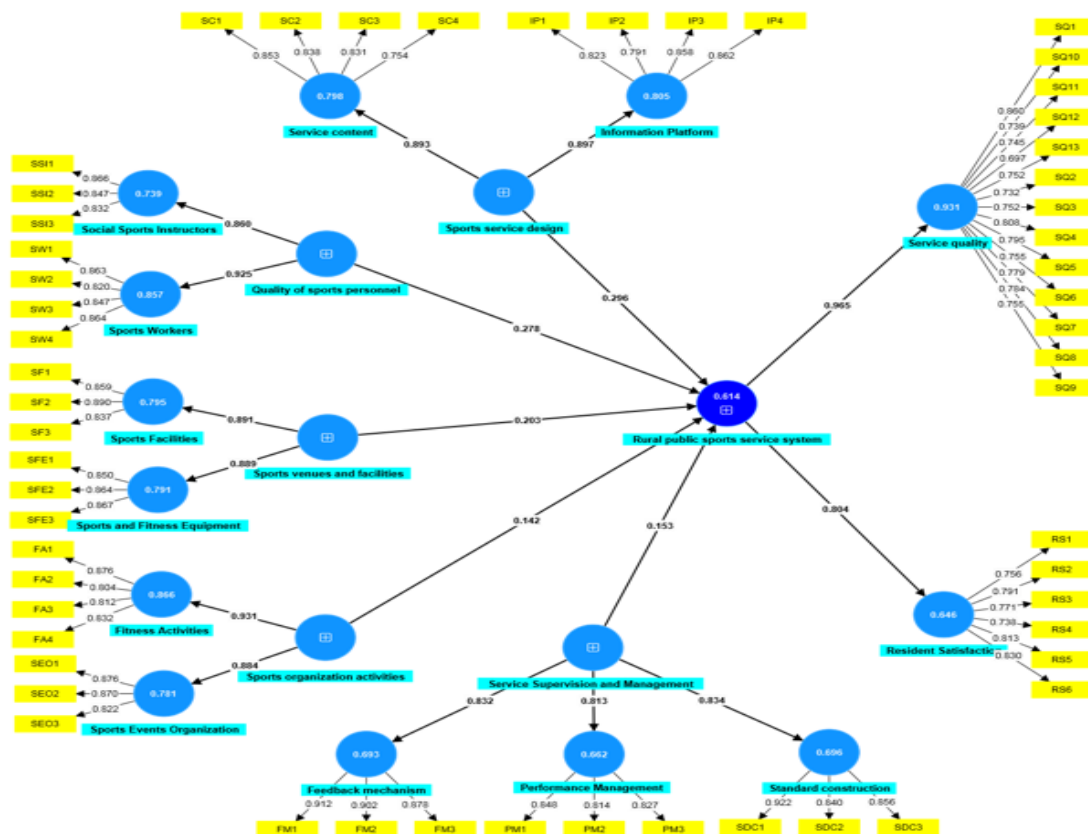


Figure 2: Theoretical Model Results

Assuming that H2 holds, the standardized path coefficient of the quality of sports personnel on the rural public sports service system is 0.265 ($P < 0.001$), which indicates that the impact of the quality of sports personnel on the rural public sports service system is a positive effect, suggesting that the core of the quality improvement of rural public sports services and the source of innovation. The generation of rural public sports service quality is related to all members within the organization, and work attitude, competence and professionalism ultimately affect the level of quality.

Assuming that H3 is established, the standardized path coefficient of sports venue facilities on rural public sports service system is 0.202 ($P < 0.001$), indicating that the impact of sports venue facilities on rural public sports service system is a significant positive effect, the venue facilities are the basic conditions and guarantees of rural public sports services, and the traditional supply of public sports facilities and the enhancement of the people's demand for the quality and function of public sports facilities is the main contradiction in the development of public sports facilities in China (Zhang, 2019). Under the new situation, public sports facilities not only need to solve the problem of insufficient quantity and unreasonable layout, but also need to effectively improve the service capacity (Gao et al., 2016). Continuously accelerate the process of balanced allocation of public sports facilities resources, and continuously improve the service level (Meng et al., 2019). The government's investment in public sports facilities has been increasing year by year, and it is necessary to ensure that the use of financial funds is "value for money", and the quantitative and visual performance evaluation is of great significance. Therefore, to improve the quality of rural public sports facilities, it is necessary to start from the aspects of institutional planning, institutional breakthrough and performance evaluation.

Assuming that H4 is established, the standardized path coefficient of sports activity organization on the rural public sports service system is 0.144 ($P < 0.001$), indicating that the impact of sports activity organization on the rural public sports service system is a significant positive effect, the activity organization is necessary for the operation and development of the public sports service, and realizes value-added through rational allocation to bring benefits for the organization or its members, and with the development of the times. With the development of the times, a pluralistic society will inevitably produce multiple needs, and the specificity of sports itself will be gradually shown, the participation of the public in fitness and scientific requirements will continue to improve, in order to improve the public's sports fitness literacy and create a good fitness atmosphere, can effectively promote the level of rural public sports services.

Assuming that H5 holds, the standardized path coefficient of service supervision and management on rural public sports service system is 0.140 ($P < 0.001$), indicating that the impact of service supervision and management on rural public sports service system is a significant positive effect, and the improvement of the quality of rural public sports services by service supervision is reflected in the process of influencing the relevant factors, that is, the legal system, the construction of standards, and public opinion supervision and other Means, need to fall to the rational allocation of resources.

5.2 Recommendation

There are two suggestions. For the model of rural public sports service system, the service quality should be improved through optimizing the design of rural public sports service, improving the quality of sports personnel, coordinating the supply of public sports venues and facilities, enriching the organization of sports activities, and strengthening the supervision and management of services, so as to achieve the concept of health for all. At the same time, the sports management department should improve the level of service, accelerate the establishment of smooth information channels, the use of artificial intelligence means to obtain the residents' fitness needs, and increase the advocacy of fitness "cure the disease" concept, so that more and more of this spontaneous participation in physical exercise, and truly realize the fitness for all.

5.3 Future Research

In the future research, we can try to optimize the theoretical model of rural public sports service system with more influencing factors, and overcome the insufficiency of the model with practice, so as to build a theoretical model more suitable for the development of remote rural public sports service.

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