http://dx.doi.org/10.18623/rvd.v23.5874

# SEABORNE SURVEILLANCE AND ARTIFICIAL INTELLIGENCE: POSSIBLE DIRECTIONS OF ITS APPLICATION IN THE ENFORCEMENT OF THE LAW OF THE SEA

## *VIGILÂNCIA MARÍTIMA E INTELIGÊNCIA ARTIFICIAL: POSSÍVEIS DIREÇÕES DE SUA APLICAÇÃO NA APLICAÇÃO DO DIREITO DO MAR*

Article received on: 11/10/2025
Article accepted on: 2/2/2026

**Xin Huang***
*Suan Sunandha Rajabhat University, Thailand
s65584950001@ssru.ac.th

**Supitr Samahito***
*Suan Sunandha Rajabhat University, Thailand
supitr.sa@ssru.ac.th

The authors declare that there is no conflict of interest

**Abstract**
The purpose of this study are to: (1) study the current status of the management model of youth table tennis competitions in Yunnan Province. (2) identify and analyze the influencing factors of the management model of youth table tennis competitions in Yunnan Province. (3) take the management of youth table tennis competitions in Yunnan Province as the research object. This study adopts a mixed research method that combines quantitative and qualitative research methods. Through literature review, theoretical concepts and data analysis were conducted on a sample of 276 relevant research papers. The research results show that: (1) The current status of the management of the youth table tennis project in Yunnan Province reflects the actual situation of the influencing factors of the management of the youth table tennis competitions in Yunnan Province. The improvement of the management capacity of the youth table tennis competitions in Yunnan Province can promote the professional and sustainable development of the youth competition industry in Yunnan Province. Through the comprehensive analysis of the influencing factors, the management level of the youth table tennis competitions in Yunnan Province can be further improved. The influencing factors of the management model of the youth table tennis project in Yunnan Province are explored. The feasibility of the management model of the Yunnan Youth Table Tennis Championship is evaluated. (2) Organizational structure, event marketing promotion, event benefits, and event service quality factors have a significant positive impact on the management of

***Resumo***
*O objetivo deste estudo é: (1) estudar o estado atual do modelo de gestão de competições juvenis de tênis de mesa na província de Yunnan; (2) identificar e analisar os fatores que influenciam o modelo de gestão de competições juvenis de tênis de mesa na província de Yunnan; (3) tomar a gestão de competições juvenis de tênis de mesa na província de Yunnan como objeto de pesquisa. Este estudo adota uma metodologia mista de pesquisa, combinando métodos quantitativos e qualitativos. Por meio de revisão bibliográfica, foram realizados estudos teóricos e análise de dados em uma amostra de 276 artigos científicos relevantes. Os resultados da pesquisa mostram que: (1) O estado atual da gestão de projetos de tênis de mesa juvenil na província de Yunnan reflete a situação real dos fatores que influenciam a gestão de competições juvenis de tênis de mesa na província. O aprimoramento da capacidade de gestão das competições juvenis de tênis de mesa na província de Yunnan pode promover o desenvolvimento profissional e sustentável do setor de competições juvenis na província. Por meio da análise abrangente dos fatores de influência, o nível de gestão das competições juvenis de tênis de mesa na província de Yunnan pode ser ainda mais aprimorado. Este estudo explora os fatores que influenciam o modelo de gestão do projeto de tênis de mesa juvenil na província de Yunnan. A viabilidade do modelo de gestão do Campeonato Juvenil de Tênis de Mesa de Yunnan é avaliada. (2) A estrutura organizacional, a promoção de marketing do evento, os benefícios do evento e a qualidade do serviço prestado têm um impacto positivo*

the youth table tennis competitions in Yunnan Province. (3) It can be seen that the analysis of the current survey information and research data of the management of the youth table tennis competitions in Yunnan Province in this study has been unanimously approved. The quantitative research results have a certain degree of interpretability, and the structural equation model has good credibility and validity, and has certain promotion value.

**Keywords:** Youth. Table Tennis. Competitions. Management Model.

*significativo na gestão das competições juvenis de tênis de mesa na província de Yunnan. (3) A análise das informações e dados da pesquisa sobre a gestão das competições juvenis de tênis de mesa na província de Yunnan, realizada neste estudo, foi unanimemente aprovada. Os resultados da pesquisa quantitativa apresentam um certo grau de interpretabilidade, e o modelo de equações estruturais possui boa credibilidade e validade, além de valor de divulgação.*

***Palavras-chave:*** *Juventude. Tênis de Mesa. Competições. Modelo de Gestão.*

## 1 INTRODUCTION

In recent years, there are more and more youth table tennis competitions in China. From grassroots youth campus promotion to national team selection and training, the whole process is relatively systematic. Although Yunnan Province has achieved certain results in youth table tennis competitions, there are still many shortcomings. These problems not only affect the quality and effect of youth table tennis competitions, but also restrict the further development of table tennis in Yunnan Province. It is particularly important to optimize the management model of youth table tennis competitions in Yunnan Province. It is necessary to explore the management model suitable for youth table tennis competitions in Yunnan Province through in-depth research on the relevant theories and practical experience of competition management, so as to improve the organizational efficiency and quality level of the competition and promote the sustainable development of the project.

## 2 RESEARCH OBJECTIVES

1. To analyze the current situation of the management of youth table tennis competitions in Yunnan Province.
2. To explore the influencing factors of youth table tennis competitions management model in Yunnan Province.

3. To assess the feasibility of the management model of youth table tennis tournaments in Yunnan Province.

## 3 LITERATURE REVIEW

1. The relationship between the management and organizational structure of youth competitions in Yunnan Province.

De (2022) pointed out that the organizational structure of events needs to define the vertical management levels and horizontal departmental responsibilities within the organization, design the composition and organizational methods of personnel, and formulate the institutional mechanisms for organizational operation. Yan (2015) showed that the structure is the connection and organizational method between the elements within the system. In the process of building the emergency management system of large-scale sports events, the structural principles of system theory should be used as a guide. Hu (2024) said that in the current organization and management of table tennis events, the degree of perfection of the event organizational structure determines the efficiency of the event organization. The organization and management of sports competitions must be planned and implemented based on the special nature of the competition, and the organization and management work needs to be comprehensively considered.

2. The relationship between the management of youth events in Yunnan Province and the marketing and promotion of competitions.

Li (2016) said that the current sports events are showing explosive growth. Successful marketing and promotion have attracted people's continuous attention to the events, and also paved the way for the promotion and marketing of the next event. Pan (2015) showed that sports events integrate marketing and promotion, adhere to people-oriented, expand cooperation, give play to social resources, learn from advanced, scientifically and rationally develop and utilize, develop sports industry, expand sports consumption, and the scale effect of events has become the core content of market promotion. Liu (2014) believes that sports events can achieve the real implementation of marketing and promotion activities through a large number of advertising marketing and promotion activities and public welfare activities related to sports competitions.

3. The relationship between the management of youth competition in Yunnan Province and the interests of competitions.

Pan (2022) showed that the stakeholders of sports events are individuals and organizations that can influence or change all aspects of sports events. Zhou (2014) said that the core stakeholders of commercial events are mainly commercial capital, from which they obtain certain economic benefits, while marginal stakeholders obtain social values such as viewing value and educational value through the holding of events. Yin Hai (2023) emphasized that the sports system is related to organizational management, but there is a lack of professional competitions talents to operate, and there is no "intersection" between the rights and interests of sponsors and the interests of competitions. There is still room for improvement in event services, promotion, publicity, marketing, etc.

4. The relationship between the management of youth competitions in Yunnan Province and the quality of competition services.

Lü (2023) said that the quality of event services refers to the evaluation of the services provided by the event by the contestants or spectators during the event. The event organizer is the main body that provides core products and services to the audience, and the audience's recognition of service quality is the main result of the service, and the two parties form an interactive relationship. Wang (2022) believes that the service level and quality provided by the event directly affect their subjective feelings about the competitions. Therefore, in the process of transmitting the event experience information of the event consumers to the event organizer, the effective evaluation of the event service quality is an inexhaustible source of event brand asset generation. Shi (2022) said that the evaluation of service quality is mainly based on the content of the service quality to determine the evaluation dimension and redesign it in combination with a certain actual case or key area.

## 3 RESEARCH METHODOLOGY

The first step is to study the current status of the management of youth table tennis competitions in Yunnan Province.

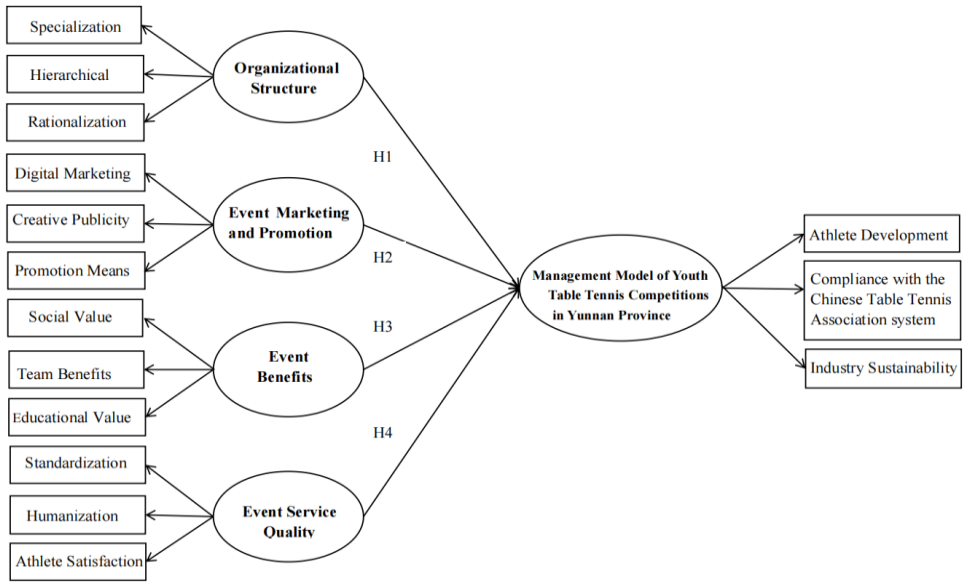
The second step is to collect data using the China Online Questionnaire Platform, process and analyze the data using SPSS and SmartPLS software, and construct a management model for youth table tennis competitions in Yunnan Province.

The third step is to use the focus group discussion method to test and confirm the influencing factors and structural equation model of the management of youth table tennis competitions in Yunnan Province. The sample data of this study comes from the youth table tennis competitions in Yunnan Province, and the sample is the participants of the youth table tennis competitions in Yunnan Province.

In Hair et al. (2014), in structural equation modeling (SEM) and other multivariate analyses, the "25 times" diagram proposed a rigorous mathematical proof, but the empirical rule is based on empirical guidelines and previous research results to ensure that the sample size is large enough to accommodate the complexity of the model. The sample size is based on the number of observation indicators under the statistical response surface or ground level, with a ratio of 1:25. A total of 15 observation variables were set in this study, so the minimum sampling index is 15*25 people, that is, 375 people. In Hair et al. (2014), in the context of structural equation modeling (SEM) and other multivariate analyses, the "25 times" figure is presented with a strict mathematical proof, but rather as a rule of thumb based on empirical guidelines and previous research findings, ensuring that the sample size is sufficiently large to accommodate the complexity of the model. The sample size was based on the number of observed indicators under the statistical response surface or formation surface in the ratio of 1:25. In this study, a total of 15 observational variables are set, so the minimum sampling index is 15*25, i.e. 375 people. Therefore, this study actually distributed 375 questionnaires, and finally obtained 360 valid questionnaires.

## 4 CONCEPTUAL FRAMEWORK

Figure 1 - Conceptual model




Source: Constructed by the researcher

This conceptual model provides the basic hypothetical relationship between organizational structure, event marketing promotion, event benefits, event service quality and the management of Yunnan youth table tennis competitions. The hypotheses are as follows:H1: The organizational structure of youth table tennis tournaments in Yunnan Province positively affects the management mode of youth table tennis tournaments in Yunnan Province.H2: The marketing and promotion of youth table tennis tournaments in Yunnan Province has a positive impact on the management model of youth table tennis tournaments in Yunnan Province.H3: The benefits of youth table tennis competitions in Yunnan Province have a positive and positive impact on the management model of youth table tennis competitions in Yunnan Province.H4: The service quality of youth table tennis competitions in Yunnan Province has a positive impact on the management model of youth table tennis competitions in Yunnan Province.

## 5 RESEARCH RESULTS

Research on the management of youth table tennis competitions in Yunnan Province. This paper adopts a mixed method of qualitative and quantitative research.

### 5.1 The current situation of youth table tennis competition management in Yunnan Province

This section studies the current situation of youth table tennis competition management in Yunnan Province. This is a qualitative study conducted by researcher, setting an interview outline based on textbooks, literature, concepts, theories, and relevant domestic and foreign research content. Structured interviews, also known as standardized interviews, usually use pre-designed and structured questionnaires to ensure a highly standardized interview process.

### 5.2 Analysis of factors affecting the management of youth table tennis competitions in Yunnan Province

#### *5.2.1 Descriptive statistical analysis*

This study organized and analyzed the basic information of the respondents, and described the overall distribution of the sample in terms of gender, age, and years of playing table tennis.

#### *5.2.2 Reliability analysis*

Table 1 - Reliability testing

| Variables | Items | Cronbach's | Cronbach's | Total Cronbach's |
|---|---|---|---|---|
| Specialization | 3 | .981 | | |
| Hierarchical | 3 | .921 | .901 | |
| Rationalization | 3 | .962 | | .926 |
| Digital marketing | 3 | .861 | | |
| Creative Publicity | 3 | .938 | .792 | |
| Promotion means | 3 | .900 | | |

| | | | |
|---|---|---|---|
| Social value | 3 | .925 | |
| Team benefits | 3 | .857 | .812 |
| Educational value | 3 | .959 | |
| Standardization | 3 | .919 | |
| Humanization | 3 | .876 | .832 |
| Athlete satisfaction | 3 | .944 | |
| Athlete Development | 3 | .848 | |
| Compliance with the Chinese Table Tennis Association system | 3 | .833 | .746 |
| Industry sustainability | 3 | .947 | |

Source: Authors

Reliability is the consistency and stability of the questionnaire test results, excluding systematic errors. The higher the reliability coefficient, the more consistent, stable and reliable the questionnaire test results are. Therefore, this paper uses the cronbach reliability coefficient for reliability analysis. In terms of measurement, the larger the coefficient, the more reliable the questionnaire. Through reliability analysis of the items, this paper uses Cronbach's Alpha coefficient to test the reliability of the collected data, and uses SPSS25.0 version of data statistics software to analyze the reliability of the scale. Regarding the reliability test standard, the academic community believes that the minimum standard of the reliability coefficient is 0.7. As can be seen from the above table (Table 1), all dimensions and quantities are greater than 0.7, indicating that the reliability coefficient of the questionnaire data is high, the questionnaire is reliable, the coefficient is concentrated, and the reliability coefficient fluctuates less. Therefore, there is no need to delete this indicator, and further analysis can be performed.

### 5.3 Validity analysis

Table 2 - Validation Factor AVE and CR Index Values

| items | Loading | AVE | CR |
|---|---|---|---|
| Specialization1 | 0.968 | 0.946 | 0.981 |
| Specialization2 | 0.961 | | |
| Specialization3 | 0.964 | | |
| Hierarchical1 | 0.88 | 0.813 | 0.929 |
| Hierarchical2 | 0.876 | | |
| Hierarchical3 | 0.883 | | |

| | | | |
|---|---|---|---|
| Rationalization1 | 0.919 | 0.895 | 0.962 |
| Rationalization2 | 0.945 | | |
| Rationalization3 | 0.928 | | |
| Digital marketing1 | 0.806 | 0.675 | 0.862 |
| Digital marketing2 | 0.801 | | |
| Digital marketing3 | 0.768 | | |
| Creative Publicity1 | 0.924 | 0.838 | 0.939 |
| Creative Publicity2 | 0.858 | | |
| Creative Publicity3 | 0.897 | | |
| Promotion means1 | 0.872 | 0.753 | 0.901 |
| Promotion means2 | 0.831 | | |
| Promotion means3 | 0.826 | | |
| Social value1 | 0.88 | 0.804 | 0.925 |
| Social value2 | 0.857 | | |
| Social value3 | 0.883 | | |
| Team benefits1 | 0.787 | 0.667 | 0.857 |
| Team benefits2 | 0.785 | | |
| Team benefits3 | 0.796 | | |
| Educational value1 | 0.929 | 0.888 | 0.959 |
| Educational value2 | 0.921 | | |
| Educational value3 | 0.937 | | |
| Standardization1 | 0.876 | 0.791 | 0.919 |
| Standardization2 | 0.865 | | |
| Standardization3 | 0.862 | | |
| Humanization1 | 0.778 | 0.706 | 0.878 |
| Humanization2 | 0.832 | | |
| Humanization3 | 0.82 | | |
| Athlete satisfaction1 | 0.915 | 0.851 | 0.945 |
| Athlete satisfaction2 | 0.905 | | |
| Athlete satisfaction3 | 0.894 | | |
| Athlete Development1 | 0.83 | 0.664 | 0.854 |
| Athlete Development2 | 0.824 | | |
| Athlete Development3 | 0.689 | | |
| Compliance with the Chinese Table Tennis Association system1 | 0.725 | 0.631 | 0.836 |
| Compliance with the Chinese Table Tennis Association system2 | 0.749 | | |
| Compliance with the Chinese Table Tennis Association system3 | 0.831 | | |
| Industry sustainability1 | 0.913 | 0.856 | 0.947 |
| Industry sustainability2 | 0.904 | | |
| Industry sustainability3 | 0.906 | | |

Source: Authors

In structural equation modeling (SEM) or factor analysis, confirmatory factor analysis (CFA) often uses average variance extracted (AVE) and composite reliability (CR) to test validity. AVE ≥ 0.50 means that the latent variable explains more than half of the variance of the measured variable, indicating good convergent validity. AVE < 0.50 means that the variance of the measured variable comes more from the error rather

than the latent variable, and the quality of the measurement indicator needs to be improved. CR ≥ 0.70 means that the reliability of the latent variable is high. According to Table 2, the larger the variance that the latent variable can explain, the better the convergent validity of the model. In this survey, the composite reliability CR of the variables and their dimensions is above 0.7, and the average variance extracted (AVE) is higher than 0.5, indicating that the variables and dimensions have strong convergence.

Table 3 - Heterotrait-Monotrait Ratio (HTMT)

| | **Organizational structure** | **Event marketing and promotion** | **Event benefits** | **Event service quality** | **Management Model of Youth Table Tennis Competitions in Yunnan Province** |
|---|---|---|---|---|---|
| Organizational structure | | | | | |
| Event marketing and promotion | 0.579 | | | | |
| Event benefits | 0.578 | 0.504 | | | |
| Event service quality | 0.55 | 0.512 | 0.512 | | |
| Management Model of Youth Table Tennis Competitions in Yunnan Province | 0.618 | 0.568 | 0.597 | 0.568 | |

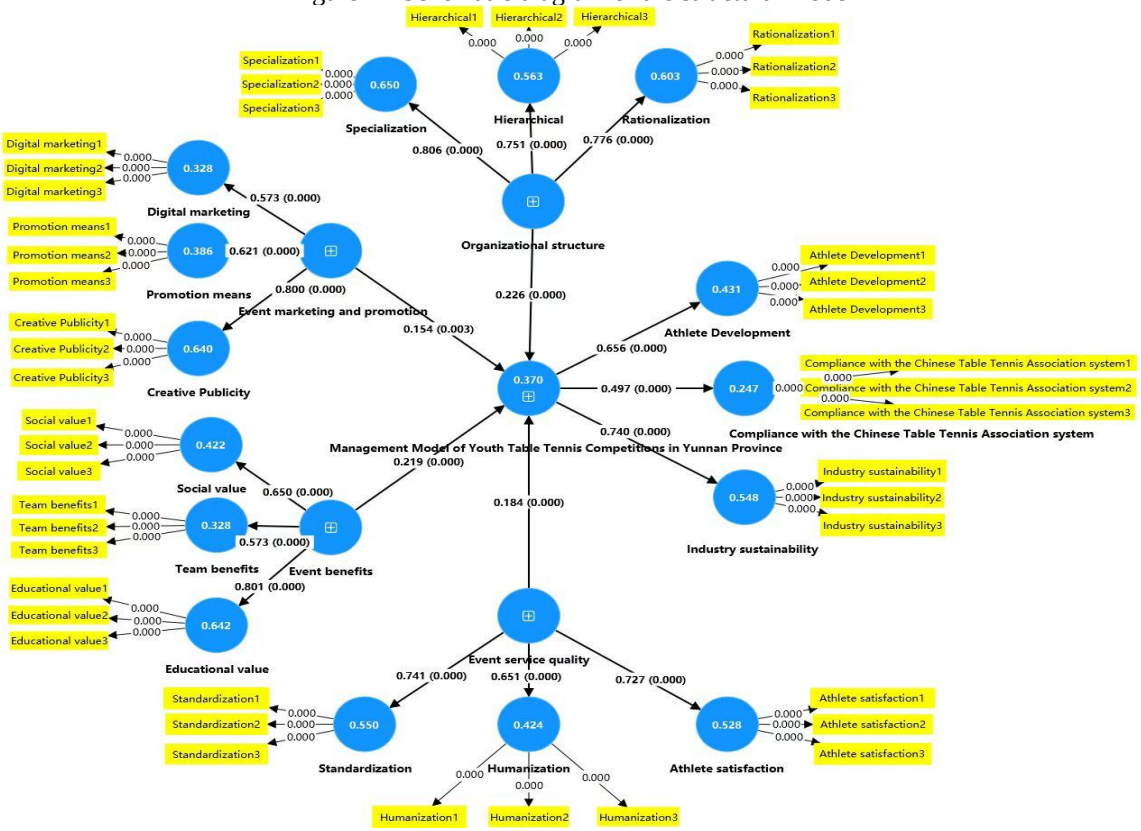
Source: Authors

According to the data in Table 3, the Heterotrait-Monotrait Ratio (HTMT) values show the discriminant validity between different variables. All HTMT values are lower than 0.85, which indicates that the discriminant validity between the variables is good, that is, there is no excessive overlap or high correlation between these latent variables, which further supports the good discriminant validity of the model. Therefore, it can be considered that these variables are relatively independent in terms of constructs and can effectively represent different indicator concepts.

### 5.4 Structural Equation Model

This study used SmartPLS to establish a path model and imported the collected 360sample data into it. The path model estimation diagram is shown in Figure

Figure 2 - Schematic diagram of the structural mode




Source: Constructed by the researcher

Table 4 - Variable Interpretation Rate

| Variables | R-square | R-square adjusted |
|---|---|---|
| Athlete satisfaction | 0.528 | 0.527 |
| Compliance with the Chinese Table Tennis Association system | 0.247 | 0.245 |
| Creative Publicity | 0.64 | 0.639 |
| Athlete Development | 0.431 | 0.429 |
| Digital marketing | 0.328 | 0.326 |
| Educational value | 0.642 | 0.641 |
| Hierarchical | 0.563 | 0.562 |
| Humanization | 0.424 | 0.422 |
| Industry sustainability | 0.548 | 0.546 |
| Promotion means | 0.386 | 0.384 |
| Rationalization | 0.603 | 0.601 |
| Social value | 0.422 | 0.421 |
| Specialization | 0.65 | 0.649 |
| Standardization | 0.55 | 0.548 |
| Team benefits | 0.328 | 0.326 |

Source: Authors

The calculation results based on the data in the table show that the $R^2$ value and adjusted $R^2$ value of the structural equation model as a whole indicate that the model has

good explanatory power for most variables and can effectively explain the variability of its related constructs. The $R^2$ values of most variables are high, indicating that the model has a good fit in these aspects, can stably capture the relationship between the variables, and has strong predictive ability and overall robustness.

Table 5 - Variable prediction determination coefficient

| Regression path | f-square | Result |
|---|---|---|
| Event benefits | 0.05 | medium |
| Event marketing and promotion | 0.026 | medium |
| Event service quality | 0.037 | medium |
| Organizational structure | 0.049 | medium |

Source: Authors

According to the f-square values of the regression paths in the table, the prediction coefficients of all variables are at a medium level. Specifically, the f-square value of Event benefits is 0.05, indicating that its predictive ability for the target variable is at a medium level, has a certain predictive effect, and can well explain the relationship between related factors. Event marketing and promotion, Event service quality, and Organizational structure are 0.026, 0.037, and 0.049, respectively, all in the medium range, showing that although the predictive ability of these variables in the regression model is not extremely high, they can still provide useful explanations and predictions. The medium f-square values of these variables mean that they have a certain role and influence in influencing and predicting management models, and can effectively promote the understanding and improvement of related factors, indicating that the model has good predictive performance.

Table 6 - Correlation value analysis of predictive ability

| Variables | SSO | SSE | $Q^2$ (=1-SSE/SSO) | Result |
|---|---|---|---|---|
| Event benefits | 3240 | 2338.652 | 0.278 | medium |
| Event marketing and promotion | 3240 | 2428.832 | 0.25 | medium |
| Event service quality | 3240 | 2258.316 | 0.303 | medium |
| Organizational structure | 3240 | 1755.165 | 0.458 | medium |

Source: Authors

In the structural model, Q2 represents the predictive relevance of the variable, and the higher its value, the stronger the predictive relevance. According to the correlation analysis results in the table, the $Q^2$ values of all variables are at a medium level, which indicates that the predictive ability of these variables has a certain validity in the regression model. The $Q^2$ values of Event benefits and Event marketing and promotion are 0.278 and 0.25, respectively, indicating that they have a certain explanatory power in predicting the target variable and can have a significant impact on the related variables. The $Q^2$ value of Event service quality is 0.303, indicating that it has a strong predictive power in the regression model and has a higher explanatory and predictive role. In particular, the $Q^2$ value of Organizational structure is 0.458, showing that it plays an important role in the model, has a strong predictive power, and can effectively explain the changes in the target variable. These medium-level $Q^2$ values indicate that the predictive ability of each variable for the overall management model is practical to a certain extent and can provide valuable reference for actual operations.

## 5.5 Structural model path coefficients/relationships

Table 7 - Hypothesis Testing

| Regression path | β | SE | T | P | 95%Lower | 95%Upper | Decide |
|---|---|---|---|---|---|---|---|
| Event benefits -> Management Model of Youth Table Tennis Competitions in Yunnan Province | 0.219 | 0.051 | 4.315 | 0.000 | 0.121 | 0.321 | Supported |
| Event marketing and promotion -> Management Model of Youth Table Tennis Competitions in Yunnan Province | 0.154 | 0.052 | 2.951 | 0.003 | 0.051 | 0.252 | Supported |
| Event service quality -> Management Model of Youth Table Tennis Competitions in Yunnan Province | 0.184 | 0.049 | 3.78 | 0.000 | 0.088 | 0.28 | Supported |
| Organizational structure -> Management Model of Youth Table Tennis Competitions in Yunnan Province | 0.226 | 0.055 | 4.125 | 0.000 | 0.11 | 0.329 | Supported |

Source: Authors

In the path coefficient test of this structural model analysis, path coefficient analysis is used to measure the influence strength between the latent variables, and hypothesis testing is used to evaluate whether these influences are statistically significant. The results show that H1organizational structure, H2event marketing and promotion, H3event benefits, and H4event service quality have significant positive effects on the model of youth table tennis competitions in Yunnan Province ($P < 0.05$). All hypotheses are supported, especially H1organizational structure has the most significant impact on the management model ($\beta=0.226$), which can show that an efficient event organization structure can effectively improve management efficiency. In addition, H3event benefits ($\beta=0.219$), H4event service quality ($\beta=0.184$) and H2event marketing and promotion ($\beta=0.154$) also play an important role, indicating that improving event experience and brand promotion can optimize the event management model. These results verify the research hypotheses and provide empirical support for the optimization of the competition management model.

## 6 THE MANAGEMENT OF YOUTH TABLE TENNIS COMPETITIONS IN YUNNAN PROVINCE WAS REVIEWED AND CONFIRMED THROUGH FOCUS GROUPS

This study convened a group of 11 sports event management experts and university sports event management experts. to summarize and verify previous research. Group discussions were held: (1) 4 senior management experts. (2) 4 experts in the organization and management of competitions. (3) 3 university professors engaged in event management. First, the researcher reported the previous research results and asked the group members individually. Second, the group members confirmed the survey results and provided opinions according to the focus group. Finally, the researcher collected the opinions of the group members on the results of the meeting discussion.

This study analyzed the current status survey information and research data of the management of youth table tennis competitions in Yunnan Province and was unanimously approved. The quantitative research results all have a certain degree of interpretability, and the structural equation model has good credibility and validity, and has certain promotion value.

## 7 DISCUSSION

The current status of the management model of youth table tennis competitions in Yunnan Province mainly revolves around four dimensions: Organizational Structure, Event Marketing and Promotion, Event Benefits, and Event Service Quality. Organizational Structure: Specialization, Hierarchical, Rationalization. In the event organization structure, specialization, hierarchy, and rationalization are combined to promote each other to form a perfect cycle, thereby improving the efficiency and professionalism of the event management organization structure. Event Marketing and Promotion: Digital Marketing, Creative Publicity, Promotion Means. Under the interaction and promotion of these three marketing and promotion methods, a complete system is formed to increase the marketing and promotion effect of the event. Event Benefits: Social Value, Team Benefits, Educational Value. The three play a positive role in promoting each other and enhancing value together. Event Service Quality: The combination of Standardization, Humanization, and Athlete Satisfaction plays an important role in the sustainable and healthy development of youth competitions.It is emphasized that we must adapt to the development needs of the times, ensure the importance of talent training, and recognize the impact of organizational structure and management model on the success of the competition. Let more young people participate in the table tennis project, and ensure that participants have a successful experience in the competition, and promote the sustainable development of table tennis competitions.

## 8 SUGGESTIONS

### 8.1 Theoretical Suggestions

We can combine sports competition management theory, sports industry economics and service management theory to establish a management system suitable for youth table tennis competitions to ensure the standardization, scientificization and efficiency of the events, optimize the event organization structure and improve the systematic management. Event organization should adopt scientific management models, such as data-driven decision-making and intelligent event management systems, to

improve event operation efficiency and optimize resource allocation. Strengthen event service quality management and establish a sound evaluation and feedback mechanism to ensure continuous improvement of event organization and improve the satisfaction of athletes, coaches and spectators. In addition to the impact on the competitive level, the social value of youth events (such as sportsmanship cultivation, health promotion, cultural exchange, etc.) deserves in-depth research. We can also combine Social Impact Theory to explore the comprehensive impact of competitions on local economy, education, youth growth and other aspects to improve the social responsibility system of youth competition management. Ensure that the management of youth table tennis competitions in Yunnan Province can provide strong support for the long-term development of sports competitions.

### 8.2 Policy Suggestions

Actively establish a tournament management team, strengthen the training of tournament management personnel, carry out regular professional training and continuing education, and improve the level of tournament management and execution efficiency. It can improve the relevant laws and regulations on the management of youth table tennis tournaments, strengthen the institutionalization and standardization of tournament management, and ensure the fairness, impartiality and safety of the tournaments. Establish scientific tournament quality evaluation standards and feedback, enhance the brand influence of the tournament, and promote the long-term development of the tournament. Increase marketing and promotion to encourage sports institutions, schools and other educational departments to cooperate in promoting the development of youth table tennis tournaments, and provide policy support for the training of high-level table tennis reserve talents in Yunnan Province.

### 8.3 Further Research Suggestions

Future research can further explore how digital technology can optimize competition management, develop and utilize big data, and intelligent competition management software to achieve integrated competition functions. Promote event

branding and sustainable development through a high-level talent selection mechanism, establish a high-level talent echelon, and provide a more professional training path for youth table tennis. Explore the innovation of event marketing strategies, and improve the market appeal of events through cross-border cooperation and IP event creation, and expand the commercial operation model of competitions. In order to achieve the scientific, intelligent and branded development of competition management, provide more professional and scientific guidance for the management of youth table tennis competition.

## REFERENCES

CHEN, H., & LI, G. (2024). Research on organization, management, and optimization measures of sports events based on the concept of a sports power. *Sports World*, (02), 110-112.

CHEN, J. (2016). Research on sports event operations in China. *General Administration of Sport of China*.

CHEN, S., & GUO, L. (2020). Research on PPP project performance management from the perspective of uncertainty. *Journal of Central University of Finance and Economics*, (8), 14-23.

DE, L. (2022). *Research on the organization and management of large-scale sports events*. Inner Mongolia University.

FU, J., & Wang, J. (2024). Research on the construction of a standardized system for sports event services. *Sports Science and Technology*, 45(02), 1-3.

HU, Y. (2024). Research on optimization strategies for table tennis event organization management in China. *Sports and Cultural Products*, (08), 31-33.

HANG, A. (2024). Research on team cohesion cultivation paths for college cheerleading teams. *Journal of Jiamusi Vocational College*, 40(02), 153-155.

LI, S. S. (2016). Research on the application of WeChat in the marketing and promotion of mass sports events. *Contemporary Sports Science and Technology*, 6(12), 98-99.

LÜ, S. (2023). Research on the dimensions, evaluation, and improvement of service quality in square dance events in China. *Northeast Normal University*.

LIU, J. (2014). Analysis of sports event marketing promotion and ticket pricing strategies. *Price Monthly*, (03), 44-48.

PAN, J. (2015). Global market promotion research and enlightenment of "The Color Run": Part two - Integrated marketing promotion of sports events. *Sports*, (15), 129-130+42.

PAN, W., & ZHONG, B. (2022). Research on brand building of Sanda commercial events in Shanghai from the perspective of “event stakeholders”. *Shanghai University of Sport*.

SHI, R. (2022). Research on the development of sports event tourism destinations based on a "human-environment-industry" three-dimensional perspective. *Beijing Sport University*.

WANG, X., & WANG, J. (2022). Research on the generation mechanism and cultivation path of commercial sports event brand assets in China. *Journal of Tianjin University of Sport*, 37(01), 60-65+79.

XIE, W., & Lu, L. (2024). Analysis of the organization and operation mode of sports dance events in colleges and universities. *Sporting Goods and Technology*, 2024(22), 32–34.

YAN, E. T., & Wang, P. (2017). Research on the value enhancement path of sports events based on ecology. *Theory and Practice of Education*, 37(6), 60–62.

YIN, H. (2023). Research on optimization strategies for branding Chengdu Marathon events. *Chengdu Sports Institute*.

ZHOU, H. (2014). Research on the comprehensive benefits of martial arts events. *Wuhan Institute of Physical Education*.

ZHOU, J., & YANG, G. (2023). Research on how venue arrangement and event rules enhance the attractiveness of sports events. *Sports and Cultural Products*, (23), 52-54.

## Authors’ Contribution

All authors contributed equally to the development of this article.

## Data availability

All datasets relevant to this study’s findings are fully available within the article.

## How to cite this article (APA)

Huang, X., & Samahito, S. (2026). SEABORNE SURVEILLANCE AND ARTIFICIAL INTELLIGENCE: POSSIBLE DIRECTIONS OF ITS APPLICATION IN THE

ENFORCEMENT OF THE LAW OF THE SEA. Veredas Do Direito, 23(6), e235874. https://doi.org/10.18623/rvd.v23.5874