

MANAGEMENT TALENT FOOTBALL TEAM MODEL FOR HUNAN PROVINCE YOUTH CAMPUS FOOTBALL LEAGUE

WEN TANG

College of Innovation Management, Suan Sunandha Rajabhat University, Bangkok, Thailand.
Email: s63484950014@ssru.ac.th

PARINYA KWANMUANGVANICH

Faculty of Innovation Management, Suan Sunandha Rajabhat University, Bangkok, Thailand.
Email: parinya.kw@ssru.ac.th

Abstract

This study analyses in depth the multifaceted factors affecting the model of managing talent football teams in the Hunan Youth Campus Football League, which are clearly classified as the competition system, the social and cultural environment, the guarantee system and the training system. Using these four dimensions as independent variables, this study empirically examines them using a variety of statistical methods and models to reveal their specific effects on the model of managing talent football teams in youth school football leagues in Hunan. The results of the study are as follows: the competition system, the social and cultural environment, the guarantee system and the training system all show a significant positive influence in the Hunan Youth Campus Football League Management Talent Football Team Model. The findings not only confirm the strong relationship between the proposed model and its four components, but also provide strong evidence for this study to understand how these factors work together to shape and optimise the model of youth school football league management talent. This study also provides rich practical experience and theoretical support for the application of structural equation modelling in measuring the factors of youth school football league management talent football team model.

Keywords: School Football League, Management Talent, Football Team Model.

1. INTRODUCTION

The Youth Campus Football League is an important part of the development of football, which not only provides a platform for young people to participate in football, but also an important way to train up good football reserves. However, to achieve success in youth school football leagues, a well-managed football team plays a crucial role in addition to the skills and efforts of youth players. This paper will explore the importance of a well-managed football team to the success of youth school football leagues, analyse its specific role in the leagues, and make corresponding suggestions. It is believed that through the implementation of these measures, the development of school youth football league can be better promoted, and more excellent football reserve talents can be cultivated, thus contributing to the prosperity of football in China.

1.1 Objective

Analysis of factors affecting the model of managing talent football teams in Hunan youth school football league.

1.2 Research scope

1.2.1 Content Scope

The purpose of this study is to investigate the factors influencing the development of talent football teams in the management of youth school football leagues in Hunan Province. Specifically, the main population to be investigated is the participants of youth school football league in Hunan Province. The study will be conducted in 2023.

1.2.2 Population scope

This study uses data from administrators, coaches, referees and players of youth school football competitions in Hunan Province.

1.2.3 Geographical scope

Hunan Province, China.

1.3 Conceptual framework



2. RESEARCH METHODOLOGY

2.1 Research design

This study adopts quantitative research, firstly, according to the research objectives, research content, designed the questionnaire on the influence factors of the development of football teams of youth campus football league management talents in Hunan Province, to determine scientific, reasonable and answerable questionnaire topics, to verify the feasibility of the pre-survey by using simple random sampling, and finally to form a formal questionnaire. Secondly, random sampling was used to select the respondents for questionnaire distribution using stratified sampling. Finally, according to the real data of the questionnaire respondents for statistical analysis, validation and modification of the influence factor indicators are discussed with the aim of investigating the factors affecting the development of the management of talent football teams in the youth campus football league in Hunan Province.

2.2 Population and samples

2.2.1 Population

There are 400 coaches, 400 referees, 600 athletes and 600 related personnel, totalling 2000 people in Hunan Province for youth school football activities.

2.2.2 Samples

The sample group was used to develop a model for managing talent football teams in youth school football leagues in Hunan Province. The sample size was determined by Krejcie and Morgan (Krejcie & Morgan, 1970, p. 608). It consists of coaches, referees, players, and related personnel of youth school football activities in Hunan Province, totalling 430 people.

2.3 Instrumentation

The research instrument used to collect the data is a questionnaire which utilises theories, concepts and relevant research on the factors affecting the development of managerial talent football teams in the Hunan Youth School Football League. Each variable was first defined and the questionnaire was created. Then the quality of the questionnaire was checked and scoring criteria were developed. The process of developing the research questionnaire includes the following steps:

1. Study theories, literature and related studies to provide data for questionnaire development. Then consultant's opinion and additional suggestions are sought.
2. Synthesise the texts obtained from research literature and related studies and then write them into measurable and clear operational definitions.
3. Create a questionnaire based on the elements and behaviours identified in the operational definition.
4. Evaluate and modify the questionnaire based on the recommendations of the three experts. These experts will evaluate the quality of the questionnaire by assessing the index of congruence of each item with the objectives of the study (Index of congruence of item

objectives: IOC). They will also check the content validity by checking the consistency between the identified components and behaviours.

2.4 Testing quality of research instrument

This research used a questionnaire to examine the content validity of the text in each question to ensure that they aligned with the objectives of the study. The questionnaire was reviewed by three qualified individuals to assess the clarity of the language and the congruence of the questions with the objectives)Index of Item Objective Congruence: IOC(, where an acceptable index value must be 0.60 or higher. The scoring criteria were as follows:

- +1 Means the question is clearly aligned with the objective and can be used to measure it accurately.
- 0 Indicates uncertainty about whether the question can measure the objective.
- 1 Indicates that the question is not aligned with the objective and cannot be used to measure it accurately.

After that, the IOC for each question was calculated using the following formula:

$$IOC = \frac{\sum R}{N}$$

Where IOC refers to the index of item objective congruence between the content of the question and the objectives of the study.

R refers to the score given by each qualified individual.

ΣR refers to the sum of scores given by each qualified individual for each question.

N refers to the number of qualified individuals.

An acceptable index value must be 0.50 or higher. And selected questions with an IOC value of 0.50 or higher for use in the study, all of which were evaluated by the three qualified individuals and found to have content validity that covered all aspects of the objectives, with an IOC value ranging from 0.80-1.00.

The instrument has been revised based on expert feedback, the content validity could be assessed using the Index of Content Validity)IOC(method, as described in my previous response. The IOC could be calculated by obtaining ratings from experts on the relevance of each item in the instrument to the content domain being measured, and then dividing the sum of the ratings for each item by the maximum possible sum of ratings for that item

2.5 Data collection

This research collected data by using an online questionnaire with a sample group of 100 people, while keeping backup data in case of incomplete or inaccurate responses at a rate of 10%.

The data was collected in two ways:

1. Collected the data by directly sending the questionnaire to the sample group.
2. Due to the COVID-19 pandemic situation, collected data online selected as a sample group based on the online questionnaire via email, and WeChat application. Then checked the accuracy and completeness of the questionnaire and recorded. After processing the data and analyzing various statistics, the results were recorded

2.6 Data Analysis

This research makes inferences about the population based on the sample data, then inferential statistics such as multiple regression analysis (Gujarati & Porter, 2009). Multiple regression analysis can be used to examine the relationships between the dependent variable and multiple independent variables and test hypotheses about the population.

3. RESULTS AND FINDINGS

3.1 Testing the reliability of the questionnaire

In this investigation, the scale indicators were divided into five dimensions, specifically including competition system, social and cultural environment, guarantee system, training system, and youth school football league management talent football team model. In order to assess the reliability of the questionnaire, this study adopted the Cronbach's alpha reliability coefficient method, which focuses on measuring the reliability of the questionnaire, i.e., whether or not the questionnaire items present a high degree of internal consistency with each other. According to the judgement criteria of Cronbach's alpha reliability coefficient method, when the Cronbach's alpha value is greater than or equal to 0.7, the questionnaire can be identified as having high reliability. See Table 3.1 for detailed results.

Table 3.1: Results of reliability analysis (Reliability)

Variables	Number of measurement items	Cronbach's alpha
Competition System	12	0.991
Social and Cultural Environment	12	0.975
Guarantee System	12	0.985
Training System	12	0.984
Management talent football team model for hunan province youth campus football league	15	0.785

The results show that the Cronbach's alpha coefficients of the competition system, social and cultural environment, guarantee system, training system, and the model of managing talent football teams in youth school football leagues are all greater than 0.8, which is significantly higher than the usual reliability standard. This indicates that the questionnaire used in this study has excellent internal consistency, thus verifying that the reliability of the questionnaire is good, and providing a solid foundation for subsequent analyses and research in formal surveys.

3.2 Correlation analysis of management talent football team model in Hunan youth school football league

Correlation analysis, as a statistical method, aims to assess the extent and direction of the linear relationship between two or more variables. Correlation analysis is achieved by calculating the correlation coefficient, which quantifies the strength of the association between variables. Specifically, the correlation coefficient measures the ratio of the covariance between variables to their respective standard deviations. Of these, the Spearman's correlation coefficient is the most commonly used when analysing discrete variables. Its range of values is limited between -1 and 1, where -1 indicates a perfectly negative linear relationship, 1 indicates a perfectly positive linear relationship, and 0 represents no linear association. Correlation analysis allows this study to gain insight into the pattern of relationships between variables, assess the extent of their interactions, and even make predictions about a particular variable. Due to the large amount of data, the following table shows only part of the results.

Table 3.2: Correlation analysis between variables

VarFGble	COS1	COS2	COS3	CRR1	CRR2	CRR3	LEI5
COS1	1							
COS2	0.653	1						
COS3	0.580	0.587	1					
CRR1	0.408	0.431	0.488	1				
CRR2	0.509	0.494	0.461	0.485	1			
CRR3	0.437	0.461	0.494	0.518	0.573	1		
.....	
LEI5	0.326	0.282	0.382	0.335	0.292	0.320	1

From the results presented in the table, the Spearman's correlation coefficients between most of the variables are greater than 0, which significantly indicates that there is a positive correlation between the variables of competition organisational structure, rules and regulations, and participation and motivation.

Based on this observation, it can be concluded that there is a significant correlation between the variables, and therefore the variable correlations are in line with the expected hypothesis, thus providing a strong basis and support for further structural equation analyses in this study.

3.3 Evaluation of the Structural Model

The effect size f-square value assesses the value of the contribution of an exogenous latent variable to a pending endogenous latent variable; when the f-square value is between 0.02 and 0.15, it represents that an exogenous latent variable has a small effect on a specific endogenous latent variable; when the f-square value is between 0.15 and 0.35, it represents that an exogenous latent variable has a moderate influence; when the f-square value is greater than 0.35, it represents that a particular exogenous latent variable has a large influence on a particular endogenous latent variable.

Table 3.3: Predictive correlations between latent variables in the structural equation model of this study f-square value

	f-square
CS -> YCF	0.104
SCE -> YCF	0.026
SS -> YCF	0.191
TS -> YCF	0.157

It can be seen from the table:

- 1) The f-square value of the competition system on the youth campus football league management talent football team model is 0.104, greater than 0.02, and less than 0.15, which indicates that there is a small influence of the socio-cultural environment on the youth campus football league management talent football team model;
- 2) The f-square value of the social and cultural environment on the youth campus football league management talent football team model is 0.026, which is greater than 0.02 and less than 0.15, indicating that there is a small influence of the competition system on the youth campus football league management talent football team model;
- 3) The f-square value of the guarantee system on the youth campus football league management talent football team model is 0.191, greater than 0.15, and less than 0.35, indicating that there is a moderate influence of the guarantee system on the youth campus football league management talent football team model;
- 4) The f-square value of training system on youth campus football league management talent football team model is 0.157, greater than 0.15 and less than 0.35, which indicates that there is a moderate influence of training system on youth campus football league management talent football team model.

3.4 Significance of path coefficients

Structural equation modelling is usually done with the help of non-parametric self-help (Bootstrapping) procedures in assessing the significance of the coefficients. Since the parameter values in the model are obtained by estimation, an iterative algorithm is required to keep trying various possible parameter values to minimise the difference between the estimated and observed matrices in order to obtain an optimal solution. In the statistical analysis of structural equation modelling, the t-value is used as a basis for determining whether the causal relationship between variables is significant or not. Specifically, when the t-value is greater than 1.96 and less than 2.58, it means that the path coefficient is significant at the 0.05 level of significance, labelled with *; when the t-value is greater than 2.58 and less than 3.29, it means that the path coefficient is significant at the 0.01 level of significance, labelled with **; when the t-value is greater than 3.29, it means that the path coefficient is significant at the 0.001 level of significance, labelled with ***. Using the t-value as a basis for judgement, it is possible to examine whether the causal relationship between variables reaches the level of significance. Therefore, in assessing the significance of path coefficients in structural equation modelling, it

is first necessary to perform the non-parametric self-help method procedure. The results of the significance test of the path coefficients of the structural equation model in this study are shown in Table 3.5.

Table 3.4: Significance test results of path coefficients of structural equation models in this study

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	Significant t level	P values
CS -> YCF	0.229	0.225	0.046	4.978	***	0.000
SCE -> YCF	0.088	0.084	0.032	2.730	***	0.006
SS -> YCF	0.361	0.367	0.064	5.673	***	0.000
TS -> YCF	0.331	0.328	0.051	6.497	***	0.000

Note: NS=not significant, i.e., not significant

*p<0.10, **p<0.05, ***p<0.01

From 3.5:

- 1) Since the t-value is 4.978, which is greater than 3.29, and the p-value is 0.000, the socio-cultural environment has a significant effect on the model of managing talented football teams in youth school football leagues, and its estimated value is 0.229;
- 2) Since the t-value is 2.730, which is greater than 1.96 and less than 3.29, and the P-value is 0.006, so the competition system has a significant effect on the youth campus football league management talent football team model, and its estimated value is 0.088;
- 3) Since the t-value is 5.673, which is greater than 3.29, and the P-value is 0.000, the safeguard system has a significant effect on the youth school football league management talent football team model, and its estimated value is 0.361;
- 4) Since the t-value is 6.497, which is greater than 3.29, and the P-value is 0.000, the training system has a significant effect on the model of managing talent football teams in youth school football leagues, and its estimated value is 0.331;

Therefore, all path coefficients show significance in the structural equation modelling and therefore all research hypotheses are empirically supported.

4. CONCLUSION

This study analyses in depth the multifaceted factors affecting the model of managing talent football teams in the Hunan Youth Campus Football League, which are clearly classified as the competition system, the social and cultural environment, the guarantee system and the training system. Using these four dimensions as independent variables, this study empirically examines them using a variety of statistical methods and models to reveal their specific impact on the model of managing talent football teams in youth school football leagues in Hunan. The main findings are as follows: the competition system, the social and cultural environment, the guarantee system and the training system all show a significant positive impact on the model of managing talent football teams in the Hunan Youth Campus Football League. Among them,

the training system, the competition system and the guarantee system have a particularly significant impact on the youth school football league management talent football team model, and their influence is relatively large. In contrast, the social and cultural environment also had a positive impact, but its influence was relatively small.

5. DISCUSSION

In discussing the positive influence of the competition system on the management talent football team model of the Hunan Provincial Youth Campus Football League, the healthy development of the league's management talent football team model can be promoted through reasonable competition organisational structure, perfect rules and regulations, effective participation and motivation establishment, as well as the creation of a good competition environment and atmosphere. When discussing the influence of social and cultural environment on the model of managing talent football teams in Hunan Youth Campus Football League, higher social cognition, school attention, family support and media attention together constitute a powerful driving force to promote the development of managing talent football teams in Hunan Youth Campus Football League. In discussing the impact of the safeguard system on the model of managing talent football teams in the Hunan Provincial Youth Campus Football League, policy safeguards provide the institutional foundation and legal support; financial security ensures the stable operation and financial support of the league; human resource security guarantees the professionalism and efficiency of the league; and facility safeguards provide the material foundation required for matches and training. Together, these safeguards provide strong support for the development of league management talent football teams in Hunan Province. In discussing the impact of the training system on the model of managing talent football teams in the Hunan Youth Campus Football League, the professionalism of the coaching team, the positive attitudes of the students, the advancement of the training concepts and methods, and the improvement of the selection and training mechanism together constitute the core elements of the training system. These elements not only help to improve the football skills and comprehensive quality of players, but also help to promote the sustainable development and growth of the league management talent football team.

6. SUGGESTIONS

Strengthening the league environment: improving the organisational level of the league, ensuring the impartiality of the competition rules and refereeing, and providing a fair and just competitive environment for teams. Strengthen the creation of a football cultural atmosphere, increase social recognition of and participation in football, and encourage parents to support their children's participation in football. Respond to and implement relevant policies and regulations to provide a clear direction and guarantee for the development of the league. Strengthen cooperation and communication with football organisations, schools, enterprises, etc., and strive for more resources and opportunities for the development of the league. Increase media publicity to expand the social influence of the league and attract more sponsors and partners. Optimise the talent training system: deepen the combination of sports and education

and focus on the overall development of football management talents. Enhance the professionalism and practical ability of football management talents through actual matches, management activities, case analyses and other diversified ways. Increase investment in the training of football management talents, and introduce and train professional teachers and managers. Establish a sound talent assessment mechanism to comprehensively evaluate the effect of talent training through regular assessment, match results and feedback from trainees. Strengthen cooperation and exchange with international and domestic excellent football management talent training institutions, and introduce advanced education concepts and teaching methods. Enhance the effectiveness of team management: establish a sound organisational structure and division of responsibilities for team management to ensure the efficient implementation of management decisions. Improve the player selection mechanism to ensure the selection of excellent players with potential. Develop a scientific training plan, and provide targeted training and guidance in combination with the characteristics of the players. Strengthen the construction of the logistical support system to provide players with high-quality training and playing conditions. Focus on team building and cultural construction, create a positive atmosphere, enhance team cohesion and centripetal force.

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