

Research on the Internal Mechanism and Optimization path of Digital Enabling Golf Sports Consumption in Central and Southern China

Shunshun Wang, Jie Zhang*

Department of Physical Education, Wuhan Institute of Technology, Wuhan, Hubei, China

**Corresponding Author.*

Abstract: In order to explore the key influencing factors of golf sports consumption in central and southern China, the relevant influencing factors were identified by literature analysis, and the set of influencing factors was established, and then the expert interview and questionnaire survey were used to determine the evaluation index system of influencing factors. Through the analysis of the factor system by structural equation model (SEM), the results show that the external factors, stimulus factors, cultural factors and internal factors are the influencing factors in central and southern China. The optimization path: first, pay attention to external factors; second, strengthen the dissemination of golf sports culture; third, explore new stimulating consumption patterns.

Keywords: Digital Enabling Era; Golf Sports; Sports Consumption

1. Introduction

Golf sports is both competitive and effective sport. With the rapid development of China's economy, the change of people's demand for a better life and the change of consumption concept, the proportion of investment in golf sports has increased, the market and space for its development have become larger, and the characteristics of strong correlation and high added value are prominent. The government has issued relevant policy documents, and put forward a series of requirements and suggestions to guide and stimulate the consumption demand of golf sports[1].The vigorous development of

digital economy has provided a new opportunity for the development of China's golf industry. The improvement of golf sports consumption level under the power of digital economy is an important guarantee to promote the sustainable development of the industry. The development of golf sports has entered a new golden stage, but there are some development difficulties, such as digital sports economy exist short board, golf sports consumption upgrade, golf sports consumption demand and the contradiction between the industrial structure, sports industry talents and digital sports professional integration degree is not high, golf sports consumption market is not wide. Based on the background of the vigorous development of digital economy, this paper studies the internal mechanism and optimization path of golf sports consumption in central and southern China.

2. Extraction of Influencing Factors

More comprehensively to extract the factors in central and southern region golf sports consumption, this paper systematically in China network search about "golf sports" and "sports consumption" literature, select 13 representative influence factors analysis articles, to extract the related factors of golf sports consumption of extraction, as shown in Table 1.

Combined with the survey of golf sports consumption in central and southern China, the influencing factors are summarized and summarized from four aspects: external factors, cultural factors, stimulating factors and internal factors, and the index system of influencing factors of golf sports consumption in central and southern China is constructed.

Table 1. Analysis Table of the Factors Influencing Sports Consumption

Author	Name of document	Influence factor
Li Na[2]	Study on influencing factors of sports consumption behavior in Dongying City based on Howard-SSi model	External stimulus factors: divided into social factors and marketing factors self-factors: gender, age, income, work status, education

		level, exercise situation internal factors: sports consumption motivation
Gu Yiran[3]	Study on consumer demand and influencing factors of participating golf tourism in Kunming	level of income
Wen Meng[4]	Research on the consumption behavior of fast fashion clothing based on the Howard-Ses model	External stimulus factors: marketing factors, social factors consumer themselves factors: gender, age, occupation, level of education internal psychological factors: consumption motivation
Zhang Wei[5]	Research on family sports consumption of Chinese urban residents: empirical evidence, influencing factors and policy implications	Income level, family population number
YanYiNa[6]	The relationship between the forming factors of badminton consumption behavior of urban residents	Stimulators: substance, symbol, social external factors: age, income level, leisure time intrinsic factors: motivation, demand, preference
Wang Aifeng[7]	Analysis of several factors influencing the sports consumption behavior of urban residents in Jiangsu Province	Income level, education level, and physical health status
Zhen Rui[8]	Study on the sports consumption status and restricting factors of urban residents in China	Level of economic development, leisure time, the concept of sports consumption, sports facilities, and service quality
Guo Jingbin[9]	Factors affecting and restricting the sports consumption of urban residents in China	Level of social and economic development and per capita income
Wang Aifeng[10]	Analysis of several factors influencing the sports consumption behavior of urban residents in Jiangsu Province	Income level, cultural level, etc
Wang Fei Jia[11]	Study on the influencing factors of sports and fitness consumption behavior of urban residents	Publicity, price, environment, services, and geographical location
Li Gang[12]	Study on the sports consumption behavior and influencing factors of Hangzhou residents	Behavior attitude, subjective norms, perceptual behavior factors, etc
Ma Yu[13]	Analysis of the influencing factors of the sports consumption level of Chinese residents	Economic, political, personal and other elements
Liu Zhiqiang[14]	Analysis of the factors affecting the residents' sports consumption behavior	Sports interest, price, environment, free time, income, class, age level, cultural level, etc

3. Data Analysis

Using social science commonly used survey method (Likert level 5 scoring method) for the evaluation standard, design questionnaire, invited the central south region golf club and association managers, golf sports staff and related enthusiasts, to the collection of 17 influencing factors, 150 questionnaires, recovery of 137 effective questionnaires, and then to recycle data processing and analysis.

3.1 Reliability and Validity Test

Using 137 data, by calculating the reliability of the scale, the results show that the Cronbach's Alpha coefficient is 0.892, indicating that the reliability of the scale is good and passed the test. The validity analysis of the questionnaire showed a KMO measure of 0.908, a Batley spherical test of 2207.497, a degrees of freedom of 136, a p value of 0.000 and a p value of less than 0.01, which passed the significance test with a significance level of 1%. It can be seen that the data of golf sports consumption table in

central and southern China is suitable for factor analysis.

3.2 Principal Component Analysis

Through SPSS dimension reduction analysis, the principal component analysis method, the cumulative variance contribution rate to 71.467%, which can fully reflect the original

data; the common factors extracted by the maximum variance method, and there are some logical relationship in the same components, so the selected 17 influencing factors are retained and classified. The relevant factor loadings matrix and variance contribution information are shown in Table 2

Table 2. Exploratory Factor Analysis of Sports Consumption in Golf

Ingredient	The initial eigenvalue			The sum of squares was loaded after extraction		
	Total	%Of the variance	%accumulative total%	Total	% Of the variance	Total
1	7.533	44.309	44.309	7.533	44.309	44.309
2	1.940	11.414	55.724	1.940	11.414	55.724
3	1.471	8.652	64.375	1.471	8.652	64.375
4	1.206	7.092	71.467	1.206	7.092	71.467

Extraction method: principal component analysis method

By Kaiser normalized maximum variance rotation, the rotation has converged after 5 iterations, the component matrix is determined,

summarized and summarized, and then the corresponding set of influencing factors is established. As shown in Table 3.

Table 3. Factors Influencing Golf Sports Consumption in Central and Southern China

Classification	Classification of influencing factors		Symbol
Extrinsic factor	Government behavior factors	Policy implementation	A1
		Policy incentives	A2
		Government regulation	A3
	Resource strategy factors	Digital empowerment	A4
		Resource collaboration	A5
		Innovation planning	A6
Cultural factor	Cultural	Cultural education	B1
		Knowledge of ideas	B2
		Sports values	B3
Stimulating factor	Social and symbolic factors	Symbolic identity	C1
		Social environment	C2
	Marketing factors	Product attributes	C3
		Advertising	C4
Intrinsic factor	Individual factors	Level of income	D1
		Education level	D2
		Spare time	D3
		Demand factor	D4

4. Materials and Methods

4.1 Build the Measurement Model

The measurement part of the structural equation model is composed of latent variables

and observation variables. The index system of influencing factors in central and southern China established above includes 4 latent variables and 17 observation variables. The following factors are named, and the external factors are named WZ, which are represented by 6 observation variables: policy implementation A1, policy

incentive A2, government supervision A3, digital empowerment A4, resource collaboration A5, and innovation planning A6. Cultural factors are named WH, and expressed by three observation variables, including cultural education B1, degree of concept understanding B2, and sports values B3. The stimulus were named CJ, represented by four observation variables, symbol identity C1, social environment C2, product attribute C3, and advertising C4. The intrinsic factors were named NZ and expressed by four observation variables, income level D1, education level D2, leisure time D3, and demand factor D4. According to

the above variables, the measurement model of this study was plotted, as shown in Figure 1.

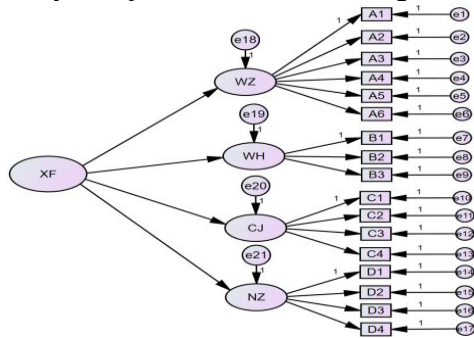


Figure 1. Structural Equation Model of the Influencing Factors of Golf Sports Consumption in Central and Southern China

4.2 Model Hypothesis

Based on the content of this study, the following assumptions are proposed:

H1: External factors have a significant impact on golf sports consumption in central and southern China.

H2: Cultural factors have a significant influence on the golf sports consumption in central and southern China.

H3: The stimulating factors have a significant influence on the golf sports consumption in the central and southern China.

H4: Internal factors have a significant impact on the golf sports consumption in central and southern China.

4.3 Model Recognition

The structural equation model constructed in this paper contains 17 endogenous observed variables, and the degree of freedom is $df = 113 > 0$, that is, the model is over-identified, and the number of latent variables of the model meets the requirements, and the model can conduct adaptation test and estimation.

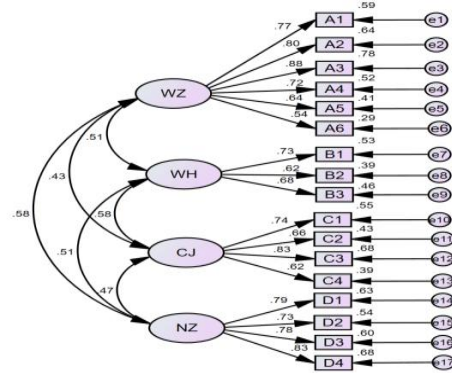
4.4 Model Fitting

The data collected in this paper was put into the measurement model, and the AMOS software was used to obtain the results, as shown in Figure 2. The results show: $\chi^2 = 137.051$; $CMIN / DF = 1.213$; $RMSEA = 0.04$; $AIC = 217.051$; $GFI = 0.895$; $AGFI = 0.858$;

4.5 Model Evaluation and Correction

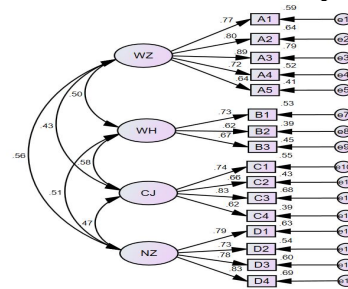
In this paper, a confirmatory factor analysis will be conducted on the sample data. From Figure 3 above, the normalized factor load of the model is greater than 0.6, which meets the standard. The

standard of SMC (standardized factor load square) of the measurement model is more than 0.36 and less than 0.9. It can be seen that the coefficient of A6 is not within the range. Therefore, it needs to be deleted and the first-order structural equation model is modified and optimized. The corrected model diagram is obtained, as shown in Figure 3.



$\chi^2 = 137.051$ $DF = 113$ $Chi/DF = 1.213$ $GFI = .895$ $AGFI = .858$

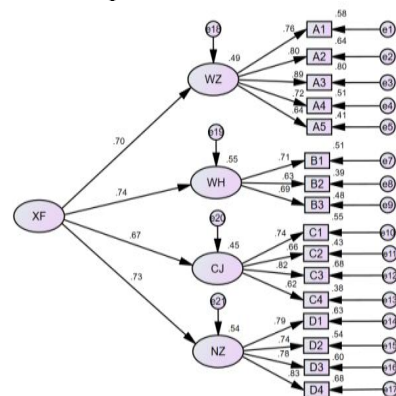
Figure 2. Path Coefficient Diagram of the First-Order Structural Equation Model



$\chi^2 = 123.804$ $DF = 98$ $Chi/DF = 1.263$ $GFI = .898$ $AGFI = .858$ $RMSEA = .044$

Figure 3. Corrects the First-Order Structural Equation Model

Model-fitting results show that the model is acceptable. Further construct higher order structural equation models using AMOS to draw the structural equation model and obtain the relevant path coefficients, as shown in Figure 4.



$\chi^2 = 126.958$ $DF = 100$ $Chi/DF = 1.270$ $GFI = .896$ $AGFI = .858$ $RMSEA = .045$

Figure 4 Path Coefficient Diagram of the Higher-Order Structural Equation Model

In the related structural equation model, the non-standardized coefficients are all positive, indicating that the correlation is positive and reaches a significant level. The research assumptions of this study are all valid.

4.6 Model Index Weight

According to the digital assign the influence factors of golf sports consumption set, after the structure equation model identification, fitting, evaluation and correction after the study of the adaptation model, and obtain the related path coefficient, standardize the path coefficient, using the normalized processing method to obtain the weight of each index. The normalization processing formula is as follows:

$$\omega_j = \alpha_j / (\alpha_1 + \alpha_2 + \dots + \alpha_n) \quad (j=1,2,\dots,n, \text{ and } i=1 \dots n \quad \omega_j=1) \quad (1)$$

Represents the action coefficient of the j th index on the latent variable, that is, the path coefficient value of the structural equation model determined in this paper. After normalization, the weight of the evaluation indicators of the influencing factors of golf sports consumption in central and southern China.

5. Results

The results showed that extrinsic factors accounted for 24.8%, stimulus factors 23.5% and intrinsic factors 25.9%. Among the external factors, the most important factor is government supervision, and the second important factor is policy incentive. Among the cultural factors, the most important factor is the value concept of golf sports, and the second important factor is the degree of concept cognition. Among the stimulus factors, the most important factor is the social environment, and the subimportant factor is advertising. Among the internal factors, the most important factor is leisure time, and the subimportant factor is education level. In addition, under the condition of other external factors, the education level will affect the characteristics of consumers' golf sports consumption, and the golf sports consumption process is mainly realized by influencing consumers' decision-making behavior.

6. Discussion and Conclusions

In a central south golf sports industry development has the effect of bilateral age — incentives and contradictions of time, using the vigorous development of the digital economy to

stimulate the new opportunity and promotion path, combined with the relevant factors, put forward the following optimization path: first, focus on external factors. Strengthen government supervision, create a good regulatory environment for industrial development policies, innovate the regulatory system of golf sports, form a diversified regulatory system, and build a regulatory framework of golf industry in digital economy. Second, strengthen the dissemination of golf and sports culture. Use the attribute of digital technology to carry the cultural value of golf sports, innovate its communication mode, and suggest relevant departments to form strategic planning and guiding policies, and carry out macro-control. Third, explore new stimulating consumption patterns. From the perspective of consumer psychology, change the consumer preference of consumers, and provide a better demand point to meet the consumer needs of golf consumers from the personnel and service level.

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