

Research on Influential Factors of Service-oriented Sports Consumption among Residents in Jiangsu Province

Ju-Fang ZHU^{1,a}, and Yi-Bo LANG^{2,b}

¹Doctorate of Hohai University, China

^{1,2}Department of Physical Education, Nanjing Normal University, China

^a935317862@qq.com, ^b1107313505@qq.com

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Abstract. Expansion of sports consumption is a reality demand to quicken pace of sports industry for the current stage. This article surveys the consumption structure of residents in Jiangsu, teases out main factors affecting residents' participative sports consumption and appreciative sports consumption and pertinently proposes proposals for expanding consumption.

Introduction

In the late years, advancement of sports industry has become a hot issue drawing attention from the public. Sports consumption dominated by body-building, entertainment and appreciation has grown into new consumption hot spots, development of sports industry has been constrained by demands for social sports consumption and social sports consumption demand is checked by social and economic level and people's consumption awareness[1]. Cultivation of marketplace needs guidance on sports demand and sports consumption, for without sports consumption, sports marketplace does not exist [2]. Consumption is a pivotal link for the course of social reproduction and cultivation and development of sports consumption is one of the crucial means to propel industrialized advancement of sports, so this article puts Jiangsu, second in the rank for total output of sports industry in the year 2014, as the research target to survey condition of sports consumption among its residents, tease out main influential factors of service-oriented sports consumption and provide basis for reference to elevate service-oriented sports consumption and drive forwards advancement of sports industry.

It divides the research spots to three areas namely South Jiangsu, Central Jiangsu and North Jiangsu following geological condition and economic level in Jiangsu Province. Questionnaire issuing and recovery designing adopts combination of closed type and open type with closed type prevailing. Following literature review method, this article opts for needed indicators and confirms planned indicators by issuing two rounds of expert questionnaire. This questionnaire is handed out to residents in Jiangsu and chooses Nanjing, Suzhou and Lianyungang for South Jiangsu, Central Jiangsu and North Jiangsu respectively as research samples by means of sampling. Research is done in main business circle and mature communities in each city. 593 out of 600 questionnaires are recovered with a recovery rate at 93.8% and 546 copies are valid and the rate of validity is 91%. Internal consistency is adopted to test the credibility of the questionnaire and upon test, Krumbach coefficient is greater than 0.6 and it's taken that the questionnaire has high credibility.

Brief introduction to the project: partial results of Philosophy and Social Science Research Fund Project among Colleges and Universities in Jiangsu (2012SJB890005).

Descriptive Statistical Analysis on Samples

Table 1. Analysis on Samples (N=546).

		Frequency	Ratio %
Age	16-25	240	43.96
	26-35	54	20.86
	36-45	78	14.26
	46-55	60	10.99
	56-65	36	6.59
	Over 66	18	3.34
Degree of education	Junior high school and below	18	3.3
	Senior high school	42	7.7
	Junior college	156	28.57
	Undergraduate college	288	52.75
	Graduate student and above	42	7.6
Average monthly income	Less than 2000	29	5.3
	2001-4000	143	26.2
	4001-6000	212	38.83
	6001-8000	95	17.4
	8001-10000	55	10.1
	More than 10001	12	2.2

Condition Involving Sports Consumption among Residents in Jiangsu

Viewed from types of sports consumption, residents in Jiangsu province tend to spend on sports entities. Among total sports consumption, clusters choosing entity consumption account for 61%, which covers purchase of sports garments, shoes, hats, sports equipment, sports magazine and the like. Those opting for participative consumption and appreciative consumption take 34% and 5% respectively. The likes of training on sports items, watching of sports games and sports medium in participative and appreciative consumption constitute the main parts of service-oriented consumption, but the two seize a measly 39% among total consumption. Sports entity consumption far outweighs sports service consumption, so elevation of service-oriented sports consumption is one of the urgent matters for boosting sports industry and pinning down of its primary influential factors can facilitate its advancement.

Among interviewees to be researched, over a half of people take part in sports activities, over one third of whom are frequent participators of sports activities who are stable clusters for sports population and one of the target groups for sports consumption demands.

Analyzed from the gender involved in sports, people of different genders show certain disparity. Over half of males partake in sports at 56.4% while around half of female residents never take part in sports. Seen from types of projects they participate in, clusters of the same gender show difference. Males take a higher proportion at 87.42% as regards consumption group for appreciative type and sports magazines; female groups tend to get involved in consumption for training such as aerobic gymnastics, dance sport and other fitness types and this ratio stands at 78.12%.

Viewed from age brackets for sports involvement, residents aged 16-25 show the highest participation rate at 90.8% followed by those groups of 26-35, 36-45, 46-55 and those above 66. The age bracket of 56-65 show the least participation rate at 39.8%.

Analysis on Factors Affecting Jiangsu-based Residents' Participative Sports Consumption

KMO and Bartlett Test

Prior to implementation of factorial analysis, we need to carry out KMO and Bartlett sphericity test on original data to judge whether factorial analysis can be applied to it or not. After calculation on data of weight influential factors on residents' participative sports consumption by use of SPSS software, KMO test statistics is 0.687, Bartlett sphericity test statistics is 196.9333 and its corresponding P value is 0.000. It accounts for that factorial analysis is applicable to the model.

Variable Commonality

Variable commonality refers to accountability to account for the total variance by all divisor variables that is used to weigh down the entire effect of divisor extraction. It can be known from Table 2 that information missing of these variables is low and variables can be well interpreted by factors.

Table 2. Variable commonality affecting residents' participative sports consumption.

Indicator	Initial value	Extract value
Site facility	1.000	.700
Site service	1.000	.793
Site convenience	1.000	.736
Site price	1.000	.553
Individual interests	1.000	.662
Guidance of individual members	1.000	.555
Conformity	1.000	.718
Social contact	1.000	.800

Total Variance Explanation

Variable rate of contribution is an indicator that weighs comparative degree of importance of common factors and the higher the rate is, the more comparatively important the common factor is. It can be known from Table 3 that accumulative variable contribution rate of three common factors is 68.958%, which shows that the three common factors basically retain most information of the former eight indicators. To get nomination and explanation of common factors towards variables, rotation on extract results of factors is needed. It can be seen that rate contribution rates for each factor after rotation are respectively 26.386%, 24.950% and 17.622%. It can be thus concluded that the three variables co-explain factors affecting residents' participative sports consumption. The first factor has highest accountability capacity while the following two have weaker explanatory capacities. But variation among the three is small.

Table 3. Total variance explanations of factorial analysis affecting residents' participative sports consumption.

Elements	Initial characteristic value			Loading of rotation quadratic sum		
	Total	Variance %	Accumulation %	Total	Variance %	Accumulation %
1	2.946	36.821	36.821	2.111	26.386	26.386
2	1.394	17.419	54.240	1.996	24.950	51.336
3	1.177	14.718	68.958	1.410	17.622	68.958

Common Factor Extraction and Nomination

As can be seen from factor loading matrix after rotation (Table 4), common factor 1 is high in loading value in terms of site facility, site service, site price and guidance of professional members. Seen from the actual situation, residents show more tendency to spend on sports in such venues with considerable services and sufficient professional staffs and therefore, common factor 1 can be defined as business service factor. Common Factor 2 is high in loading value in terms of site convenience, site price and individual interests. Individual interest is the premise that residents get involved to sports. People tend to choose the nearby and most convenient site at a price within their bearable range, so Common Factor 2 can be defined as consumer factor. Common Factor 3 is high in loading value in terms of conformity and social contact that are affected by sports consumption environment, so Common Factor 3 is defined as environmental factor for social consumption. It can be seen from variance contribution rate of each factor after rotation that the factor of site condition imposes the highest influence on residents' participative sports consumption while the other two factors have minor influence.

Table 4. Factor loading matrix after rotation affecting residents' participative sports consumption.

Indicator	Main component	Main component	Main component
Indicator	0.737	0.368	0.145
Site facility	0.846	0.273	0.052
Site service	0.313	0.799	0.008
Site convenience	0.353	0.554	-0.348
Site price	-0.029	0.796	0.167
Individual interests	0.735	-0.074	0.098
Guidance of individual members	0.298	-0.208	0.766
Conformity	0.002	0.399	0.801
Social contact	0.737	0.368	0.145

Analysis on Factors Affecting Appreciative Sports Consumption among Residents

KMO and Bartlett Test

SPSS software is used to calculate data of appreciation value, promotion activity, influence of sports star, ticket price, race site, view held by surrounding people, support for local sportsmen, race date and weather condition. KMO test statistics is 0.792, Bartlett sphericity test statistics is 264.785 and the corresponding P value is 0.000. It shows that factorial analysis applies for the model.

Variable Commonality

Table 5 is the commonality of characteristic roots extracted when characteristic roots are higher than 1. It can be seen from Table 5 that information loss of these variables is minor and variables can be explained by factors.

Table 5. Variable commonality affecting residents' appreciative sports consumption.

Appreciation value of race	Initial value	Extract value
Promotion activities	1.000	.559
Influence of sports stars	1.000	.536
Ticket price	1.000	.606
Competition address	1.000	.496
Views held by surrounding clusters	1.000	.556

Support for local sportsmen	1.000	.621
Weather condition	1.000	.619

Explanation of Total Variance

Table 6 reflects that variables reflect total variance of the original variables. It can be seen from Table 6 that accumulative variable contribution rate of the two factors is 56.345% and variable contribution rates of the two factors after rotation are respectively 28.785% and 27.560%.

Table 6. Total variance explanations of factorial analysis affecting residents' participative sports consumption.

Elements	Initial characteristic value			Loading of rotation quadratic sum		
	Total	Variance %	Accumulation %	Total	Variance %	Accumulation %
1	3.812	42.353	42.353	2.719	30.209	30.209
2	1.385	15.391	57.744	2.478	27.535	57.744

Common Factor Extraction and Nomination

Table 7 is the factor loading matrix after rotation. Common Factor 1 is high in loading value in terms of appreciation value of the race, ticket price, race site, race date and weather condition. Under the circumstances that other conditions remain unchanged and when date, address, climate and ticket price is appropriate, residents tend to watch sports races with higher appreciation value. So Common Factor 1 is defined as competition holding factor. Common Factor 2 is high in loading value in terms of promotion activities, influence of sports stars, views by surrounding clusters and support for local sportsmen, so Common Factor 2 can be defined as competition consumption environment factor.

Table 7. Factor loading matrix after rotation affecting residents' appreciative sports consumption.

Indicator	Main component	Main component
Appreciation value of race	0.727	0.176
Promotion activities	0.179	0.71
Influence of sports stars	0.247	0.738
Ticket price	0.637	0.301
Competition address	0.684	0.296
Views held by surrounding clusters	0.101	0.782
Support for local sportsmen	0.189	0.764
Weather condition	0.818	0.154
Appreciation value of race	0.714	0.037
Promotion activities	0.727	0.176

It can be seen from the aforesaid analysis that primary factors affecting Jiangsu-based residents' participative sports consumption are business service factors, consumer factor and social environment factor, among which social environment factor and consumer factor imposes higher degree of influence. Primary factors affecting Jiangsu-based residents' appreciative sports consumption are competition holding factor and competition consumption environment factor. Competition holding factor imposes big influence on residents' consumption on appreciative sports.

Proposals to Expand Service-oriented Sports Consumption among Residents

Expansion of Involvement to Sports Consumption among Residents

It can be deduced from the research that main factors affecting Jiangsu-based residents' consumption on participative sports are social environment factor and consumer factor. To this end, consumers' input to participative sports can be enhanced from two perspectives. First, promotion or propaganda on effect or fashion of participative sports can be intensified, residents' awareness that sports propel health and elevate life quality can be intensified and residents can be guided to choose sports and get involved in sports. Second, cultivation degree on socialized sports outfits can be enhanced so that more residents can take part in sports and form good sporting preference so that expansion of sports participators becomes possible [5]. Finally, suppliers of products should be rooted in extensive marketing research with reasonable price formulated and marketing segmentation being carried out so that quality and low-priced services can be provided to consumers of participative sports, their service awareness can be reinforced, sports participants can acquire more marginal utility for taking parts in sports and sports participation can be proceeded with satisfaction.

Expansion of Appreciative Sports Consumption among Residents

Consumption on appreciative sports is an integral reflection of residents' economy, education and so forth. Yet the current sports consumption among residents in Jiangsu shows that demands for appreciative sports consumption are feeble. Firstly, by drawing example from operation means of cultural industry, the influence of sports stars can be enhanced and interaction between stars and interviews can be added to the competition, which elevates sway of the competition, improves consumption utility of appreciative sports events and boost their satisfaction and expectation towards the race. Secondly, such varying activities as brilliant comments or diversified games can be applied to increase consumers' watching experience deepen their impression upon the game until eventually helping them form preference to watch a certain type of sports event. Lastly, reasonable price and game-watching location can be set up targeting at different consumption groups with on-line or off-line exchange platform provided so that game-watching can be orderly and sustainably proceeding in a sound atmosphere.

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