

## **Prioritizing the Sport Interests and Comparison of the Demographic Factors for Household Sport Expenditures: Evidence from Iran**



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### **ABSTRACT**

The purpose of the present research was to prioritize the sports interests and comparison of demographic factors effects on household sports expenditures with an emphasis on Deprived, Semi well-fixed and well-fixed regions in Shiraz city, Iran. This study is an applied and descriptive survey study. The population included all the households of Shiraz to a total of 441,784 households within 10 regions in 2014. The sample consisted of 400 households who had chosen by the Morgan Table in the multistage cluster and randomly. The instrument was a researcher- developed questionnaire in three parts that the validity and reliability was confirmed. Data analyzing was done by descriptive and inferential statistics (Chi square and Fridman test). The results indicated that hiking, swimming and mountaineering in the well-fixed region, hiking, fitness, swimming in the semi well-fixed region and hiking, football and wrestling in the deprived region allocated the highest priorities. The effects of some components of demographic factors such as the education level, employment status and income level have been different on household sports expenditures. So that, those with a diploma in education, families with two children and between 500 thousand to 1 million Tomans income were allocated additional costs for sports during the year.

JEL Classification: J10; J11; J19.

Keywords: Sport Interests; Sport Management; Prioritizing; Shiraz City; Iran.

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### **1. INTRODUCTION**

Current world has rapidly gone towards industrialization and economic development in recent decades. Although industrialization and economic growth contributes to the wealth of nations (Sodeyfi, 2016), as a result of industrialization, heavy machines affect human health over the decades. That is why life in today's world takes rapid initiative of human and moves him into movement poverty. Therefore, it has created many physical, psychosocial and social problems followed by the movement poverty (Javadipoor and Sami Nia, 2013). Promotion and demotion of a community of human society depend on every person of the society members. Increasing in efficiency, healthcare costs reduction and economic growth improvement will be resulted by increase in health and vitality among the society individuals. Learning values such as the spirit of cooperation and discipline, by

people in the sports environments will undoubtedly have a positive effect on the social life of the community (Jalali Farahani, 2011). Therefore, sport has an important and special position as a good, which can be strong alternative and complementary rather than other goods such as food, clothing, health, recreation, and study in the consumption basket of households. Also the expenses related to the sports will affect the other mentioned consumption expenditures. The limitations about the levels of consumers' income conduct us to classify the goods to essential, normal, luxury or picayune when we want to choose any goods (Ferguson, 2003).

## **2. LITERATURE REVIEW**

Human societies are divided into different social classes, and everybody belongs to a certain socioeconomic class according to some measures of economic, educational, professional and personal wealth. Today, employment styles, hours and days of vacation differ due to social classes, and sports activities are not an exception. Studies in France showed that the rate of doing physical activity depends on social classes, so that if a person promote in the hierarchy of social classes, the rate will increase (Anvar Alkhuli, 2004). The results of the studies by Euler (1935), Luschen (1981) and Gruneau (1975) indicated that there is a pyramidal class system in sports fields. For example, fields such as horse riding, tennis and golf attracts the middle class and higher, while some sports like football has a more general nature and is not confined to a particular class (Fathi, 2009). Although the previous social studies showed that sports participation including participation in leisure activities did not have a relationship with social class, but the relationship between social classes and participation in sports has become clear with the advancement of research (Anvar Alkhuli, 2004). Studies showed that people in higher socio-economic classes are generally more of the information and knowledge, therefore, their decisions for their life style are based on knowledge about health and wellness issues. On the other hand, people in lower socio-economic classes do not consider great importance for their health and wellbeing (Brown & Rusinova, 2007).

Also the level of education affects individual motivation. Educated people have higher intrinsic motivation than those with lower education (Martnr & Rainer, 1993). Sports participation requires some certain sports goods and services. Economic variables such as annual income, household income or individual income have influence on sports participation of individuals. Thus, financial problems have a negative relationship with participation in many sporting activities, entertainment centers and parks. Low-income acts as a barrier to sports participation and reduces the accessibility to facilities and supplies for a wide group who wants to be active in sports fields (Spinney & Millward, 2010 and Scott & Munson, Y1994).

Breuer et al. (2010), in a study, concluded that engagement in sport activities declines with aging. Also they found that with increase in income, costs of sports go up and people earning more money spend more on exercise. In addition, they found that the level of education has a positive impact on physical activity and found that in general, men are more willing to spend money on sports than women. (Attarzadeh Hosseini and Sohrabi, 2007) in a study on women and men in Mashhad found that most people tackle to physical fitness activities, hiking and football in order of preference. There was a significant relationship between the desire of people for action and sports activities with different characteristics such as gender, age, marital status, number of family members and a monthly fee of exercise. While, there was no significant relationship between the interests in motor sport activities with different characteristics including education level, occupation, income and monthly family expenses.

Sabbagh et al. (2011), in a study in Esfahan city found that there was a significant difference between the amount of household sports expenditures based on education, age and number of children differences. So that only 0/88 percent of total household expenditures devoted to physical activity and sport participation among the population of the city is negligible. Eime et al. (2013) expressed that the highest levels of participation in sports activities were associated with children whom that at least one of their parents were employed. Ghodrat nama et al. (2011), Arisoy & Tutkun (2012), Breuer et al. (2010) and Piko & Keresztes (2008), in their studies, concluded that there was a significant difference between households' sports participation rates based on education. In a study which was done on 824 Chinese adolescents, Shi et al. (2006) found that there did not exist a significant relation between physical activity variables, residence, age, and socioeconomic status. Adolescents with high socioeconomic status or by having fathers with higher education levels had lower levels of physical activity. Also, Razavi and Ashkuh Taheri (2010) declared a significant relation between the rate of participation in sport with education and family population in their study.

The results of Mozaffari et al. (2010)'s study referred to the difference in the attitudes of various groups of people about sport and physical activity as income levels differentiate. Mohammadi and Attarzadeh Hosseini (2012), in a study on the people of Kurdistan Province, found that orientation to motor and sports activities has a significant

relationship with features such as age and total monthly household expenditures but has no significant relationship with other features such as the number of family members, education level and occupation. Also, they had observed significant difference between attitudes to the motor sports activities and monthly income of persons. Activities such as fitness, swimming and football were more popular among the people of Kurdistan. Anokye et al. (2012) and Zakani et al. (2010) in their studies introduced hiking as the major sports activities. Unfortunately, the income limitation for the consumers is the reason for eliminating sport, recreation, reading, etc. from the household consumption basket in developing countries. Because they look at sports as short-term consumption goods, and therefore are neglected its long-term losses. The studies suggested that physical activity has positive and significant effects on physical, mental and social health of people in all of life periods, and it is considered as an efficient tool to enhance the quality of life of different groups of people.

In this regard recognizing the interests of citizens in the different layers of society including deprived, semi well-fixed and well-fixed regions and the amount of their expenses for sports activities would be an appropriate guidance for managers and sports officials of Shiraz city to plan and provide facilities for citizens' sports needs and abilities proportionally. Therefore, given to the conducted studies, it has not been studied such an important issue. Therefore, research team decided to present these important, initial and applicable data to the relevant authorities. The aim of this study was to prioritize the sports interests and comparison of demographic factors effects on household sports expenditures with an emphasis on deprived, semi well-fixed and well-fixed regions in Shiraz city, Iran.

### **3. MATERIAL & METHODS**

This study is an applied and descriptive survey study. The population included all the citizens of Shiraz city consisted of 441,784 households in 10 urban regions in 2014 according to the last official census in 2011. The sample consisted of 400 households who had chosen by the Morgan Table in the multistage cluster and randomly. But given that the study participants probably were dropped, so the sample size was increased to 480. Region 1 among the well-fixed regions, Region 6 among semi well-fixed regions and Region 8 among the deprived regions were selected in the simple random method based on 10 regional divisions of municipality. Then 5 street in the regions, 3 alleys in the streets and about 11 households in the alleys were randomly selected using urban maps and completed the questionnaires. 419 of 480 distributed questionnaires returned and the analysis was done based on this number of questionnaires in this study. In general, 154 questionnaires from deprived region, 150 questionnaires from semi well-fixed region and 115 questionnaires from well-fixed region completed by the householders and submitted to the researcher accordingly. The rate of questionnaires return was 88%, so the redistribution was not necessary.

Measuring instrument was a researcher-developed questionnaire adjusted in three main sections of demographic, sports interests and sports household expenditure. The validity of the questionnaire was confirmed by 12 members of academic experts in different disciplines of Physical Education, Management and Economics. To measure the reliability, the test-retest technique was used. Accordingly, the revised questionnaire was distributed among 30 families and was redistributed among the people again after a week. The obtained reliability was equal with 0/88 that was indicating an acceptable reliability. The data was analyzed using descriptive statistics (frequency, frequency percent and mean) and inferential statistics (Friedman test and chi-square test). The analysis was done by using the Statistical Package for Social Sciences (SPSS version 19) software.

### **4. RESULTS**

Males and Females formed 60 and 40 percent of the sample volume respectively. The highest and lowest percentage of people were belonging to the age category of 36 to 40 years old with 17.1 percent and 20 to 25 years old with 4.5 percent respectively. The highest and the lowest levels of education were belonging to Diploma by 35.8 percent and PhD by 1.9 percent, respectively. The majority of the subjects had a private house with 56.8 percent, while the lowest were accommodated in corporate houses with 2.6 percent. The majority of subjects were households with 500 thousand to a million Tomans income by 40.8 percent while the minority of subjects were households with more than 2 million Tomans income by 11.5 percent.

According to Table 2, Friedman test result was significant ( $0.05 > 0.003 = P$  value), thus sports ranking based on average rates for the well-fixed region were walking, swimming, climbing, tennis, cycling, etc. The rankings for semi well-fixed region were hiking, fitness, swimming, cycling, football, etc. and for deprived region it was hiking, football, wrestling, boxing, fitness and more.

**Table 1. Average Rates of sports activities among households based on residential regions of Shiraz**

Row	Leisure time physical activities (LTPA)	Deprived region	Semi well-fixed region	well-fixed region
		Average Rate	Average Rate	Average Rate
1	Hike	4.6	4.9	4.1
2	Swim	1.3	3	3
3	Football	4.1	2.8	2.5
4	Futsal	3	2.3	1.9
5	Volleyball	1.9	2.4	2
6	Basketball	1.8	2.4	1.9
7	Handball	1.8	2.3	1.9
8	Running	2.9	2.7	2
9	Badminton	1.5	2.1	1.5
10	Weightlifting	3.5	1.2	1.1
11	Mountaineering	1.3	2.5	2.9
12	Riding bike	2	2.9	2.7
13	Physical fitness	3.8	3.1	2.3
14	Karate	3.7	1.8	1.3
15	Table tennis	1.4	2.6	2.8
16	Equitation	1.1	2.1	2.4
17	Wrestling	4	1.4	1.3
18	Gymnastics	1.6	1.6	1.9
19	Aerobics	1.7	2.2	2.6
20	Boxing	3.9	1.1	1.1
21	Yoga	1.1	1.9	2.2
22	Judo	3.6	1.5	1.2
23	The local native	3	1.1	1.1
24	Body building	2.7	2	2.1
25	Kung Fu	2.9	1.1	1.2

**Table 2. Friedman Test Results about LTPA Fields among Households Based on Residential Regions of Shiraz**

Statistical indicators	Degrees of freedom	Chi-square	Significance level
Statistics	4	28.752	0.003

**Table 3. Comparison of the Effects of Demographic Factors on Households Sports Expenditures in Shiraz**

Variable	Number	Degree of freedom	chi-square	Significance level
Sex	418	7	13.172	0.068
Age	418	42	52.307	0.132
Education	419	35	71.124	.000*
Marital status	417	14	17.633	0.224
Number of children	419	49	53.553	0.304
Job Status	419	14	26.479	0.022*
Income	419	28	92.572	0.000*
Housing	419	14	20.875	0.105

\* Significant at the level of 05/0.

**Table 4. Crosstabulation Table for Education**

Sports Expenditures (thousand Tomans)	Less than 50	50- 75	50- 75	75- 100	100- 150	150- 200	200- 250	250- 300	More than 300
Education Status									
Primary	83	7	8	8	2	1	8	8	125
Diploma	93	16	6	4	7	5	7	12	150
MD	30	0	3	4	1	2	0	7	47
BS	32	4	2	5	3	1	8	11	66
MA	11	1	0	0	0	0	1	9	22
PhD	1	0	0	1	0	1	2	3	8
Total	250	28	19	22	13	10	26	50	418

**Table 5. Crosstabulation Table for Job Status**

Sports Expenditures (thousand Tomans)	Less than 50	50- 75	50- 75	75- 100	100- 150	150- 200	200- 250	250- 300	More than 300
Job Status									
Employed	138	14	5	15	9	7	20	34	242
Retired	28	1	1	2	1	2	1	5	41
Unemployed	84	13	13	5	3	1	5	11	135
Total	250	28	19	22	13	10	26	50	418

**Table 6. Crosstabulation Table for Income Status**

Sports Expenditures (Thousand Tomans)	Less than 50	50- 75	50- 75	75- 100	100- 150	150- 200	200- 250	250- 300	More than 300
Income Status (Thousand Tomans)									
500	56	4	2	1	1	1	1	2	68
500-1000	101	18	12	12	7	1	7	12	170
1000-1500	35	4	3	3	5	4	6	10	70
1500-2000	38	2	2	5	0	3	5	7	62
More than 2000	20	0	0	1	0	1	7	19	48
Total	250	28	19	22	13	10	26	50	418

## 5. DISCUSSION & CONCLUSION

Findings around the average rates of sports activities among households based on residential regions of Shiraz indicated that hiking, swimming, climbing, tennis, cycling, etc. were common among the well-fixed region,

respectively. In the semi well-fixed region, hiking, fitness, swimming, cycling, football, etc. and in deprived region, hiking, football, wrestling, boxing, fitness, etc. were common respectively. According to the results, in the all the three regions, hiking was allocated the maximum amount of physical activity done. Hike is a healthy and low cost exercise. Due to the heavy costs of households, inflation and other costs of living such as food, clothing and housing, hiking is the exercise which makes the lowest cost for families. Therefore, households are more likely to do this sport. This result in some cases (especially hiking) is consistent with the results of Mozaffari et al. (2010), Zakani et al. (2010), Abkar (2010), Nikpour et al. (2006) and Anokey et al. (2012)' researches. Mohammadi & Attarzadeh Hosseini (2012) found that activities such as fitness, swimming and football are more popular among the people of Kurdistan province, and this result is inconsistent with our results.

Findings about individuals' education status showed that there is a significance difference between the rate of households sports expenditures based on subjects' education, ( $p=0/000$ ). The comparison of averages shows that heads of households with diploma education level spent more cost on exercise. It seems people who have a bachelor's degree or higher level of education are less inclined to participate in sports activities because of the concerns in the career. Therefore, they have been spent less expenditure on doing sports. The present study is consistent with results obtained by Qodratnama et al. (2013), Wicher et al. (2013), Xianliang & Hongying, (2012), Arisoy and Tutakan (2012), Eslami et al. (2013), Sabbagh et al. (2011), and Razavi and Ashkuh Taheri (2010); studies that indicating that there is to be a significant difference between doing regular exercise and the amount of household sports expenditures based on education. Qahremani et al. (2013) concluded that there is no significant difference between the amount of regular exercise doing and physical activity with education status.

The findings based on job status showed a significant difference in the rate of household sports expenditures based on job status ( $p =0/022$ ). Average comparison shows that employed heads of households spent more expenditure on exercise. It seems people who have a monthly income are better able to meet household sports expenditures. Therefore, it is possible to pay additional costs to exercise, while unemployed people who have no stable income and job are less able to pay for sports. Eime et al. (2013), and Lera-Lopez and Rapun-Garate (2007) concluded that there is a significant difference between the amount of regular exercises doing and household sports expenditures based on job status as well as the present findings. Mohammadi and Hosseini Attarzadeh. (2012), Abraham et al. (2011), and Attarzadeh Hosseini and Sohrabi (2006) concluded that there is not a significant relationship between physical activity and sport trend with the job status, and this is inconsistent with the present findings. Findings on the basis of the amount of subjects income showed that there is a significant difference between sports households expenditures and subjects income, ( $p=0/000$ ). The average comparison shows that families with an income between 500 to 1000 thousand tomans will spend more expenditure on exercise. Muniz et al. (2014), Eime et al. (2013), Wicker et al. (2013) and Eslami et al. (2013) came to the conclusion that the economic situation and household income have a positive impact on the amount of exercise and sports doing, and their research was consistent with the study. Qahremani et al. (2013), Pico and Keresztes (2008) and Shi et al. (2006) found that the economic situation does not affect the sport tendency that is inconsistent with the present study.

Other findings of the study showed that there is no significant difference between the rate of sports households expenditures with characteristics such as gender, age, marital status, number of children and housing status, ( $p>0/05$ ). Muniz et al. (2014), Wicker et al. (2013), Xianliang and Hongying (2012), Brewer et al. (2010), Lera-Lopez & Rapun-Garate (2007), Qahremani et al. (2013) and Ebrahimi et al. (2011) found that there is a significant difference between the amount of regular exercises doing and household sports expenditures on the basis of gender of the subjects, and men are turning to exercise more than women and spending more expenditures also. These results are inconsistent with the present study. This inconsistency is perhaps because women spend less to exercise with regarding to social and cultural values of the families, and therefore spend less expenditure to sport, or because women take housework responsibilities in addition to child care. Breuer et al. (2010) concluded that there is significant difference between household sports expenditures based on age, and the amount of engagement in sports activities is reduced with aging, and it is not consistent with current research.

Of course, getting the results can be applied in city's overall planning. It is required to do more investigations and research expenditures from the relevant organizations to consolidate the results of the present study. However, this study provides an excellent basic information for managers to perceive the citizens sports interests, and perhaps more important, to perceive the effects of demographic factors on the level of households sports expenditures.

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