

# AN ANALYSIS ON THE DETERMINANTS OF SERVICE QUALITY PERCEIVED BY MEMBERS OF THE FITNESS CENTER

Kadir YILDIZ<sup>1</sup>

Ercan POLAT<sup>2</sup>

Uğur SÖNMEZOĞLU<sup>3</sup>

Cengiz ÇOKPARTAL<sup>4</sup>

[English Version]

## ABSTRACT

In this research, it is aimed to determine the determinants of service quality perceived by fitness center members.

Scanning model from quantitative research methods was used in the research. The study group consisted of 301 women and 390 men in total 691 members who participated the research voluntarily and were selected through an easily accessible sample. The "Sport-Fitness Centers Perceived Service Quality Scale (SFC-PSQS)" developed by Uçan (2007) was used in the study. In the analysis of the data, independent t-test, correlation analysis and logistic regression tests were applied.

According to obtained findings, significant and moderate relationships were determined between service quality sub-dimensions in positive direction whereas Independent T test results showed that service quality perceptions of participants who evaluated the program as expensive were found to be significantly lower in all sub-dimensions. Considering the logistic regression results, it was determined that variable of "physical environment quality" from perceived service quality sub-dimensions had an effect on the level of program fees of the members. It seems that 1 unit increase in physical environment quality variable caused 6.1% decrease in "program fee prediction" related to odds value. It can be stated that 11% of the total variance of program fee levels predicts perceived service quality.

As a result, it is considered that only one factor cannot be effective in ensuring the continuity of sport-fitness center customers and the sustainability of the business. This is because factors such as customer expectations, equipment, experience of fitness center, customer loyalty, physical appearance that may affect individual consumer satisfaction are important factors.

**Key words:** Service quality, Sport, Fitness centers, Logistic regression

## FİTNESS MERKEZİ ÜYELERİNİN ALGILADIKLARI HİZMET KALİTESİNİN BELİRLEYİCİLERİ ÜZERİNE BİR ANALİZ

### ÖZ

Bu araştırmada, fitness merkezi üyelerinin algıladıkları hizmet kalitesinin belirleyicilerinin tespit edilmesi amaçlanmıştır.

Araştırmada nicel araştırma yöntemlerinden tarama modeli kullanılmıştır. Araştırmanın çalışma grubu, kolay ulaşılabilir örneklem yoluyla seçilen ve araştırmaya gönüllü olarak katılan 301 kadın ve 390 erkek olmak üzere toplam 691 üyeden oluşmaktadır. Çalışmada Uçan (2007) tarafından geliştirilen "Spor-Fitness Merkezleri Algılanan Hizmet Kalitesi Ölçeği (SFM-HKÖ)" kullanılmıştır. Verilerin analizinde Independent t-test, Korelasyon Analizi ve Lojistik Regresyon testleri uygulanmıştır.

Elde edilen Bulgular neticesinde hizmet kalitesi alt boyutları arasında pozitif yönde orta ve yüksek düzeyde anlamlı ilişkiler olduğu tespit edilirken; Independent T test sonuçlarına göre, program ücretini pahalı olarak değerlendiren katılımcıların hizmet kalitesi algılarının da tüm alt boyutlarda anlamlı olarak daha düşük olduğu görülmüştür. Lojistik regresyon sonuçlarında ise algılanan hizmet kalitesi alt boyutlarından "fiziksel çevre kalitesi" değişkeninin üyelerin program ücretleri düzeyi üzerinde bir etkisi olduğu belirlenmiştir. Fiziksel çevre kalitesi değişkeninde meydana gelecek 1 birimlik artışın "program ücretini yordamaya ilişkin" odds değerinde %6.1'lik düşüşe neden olduğu görülmektedir. Program ücreti düzeylerine ilişkin toplam varyansın %11'inin algılanan hizmet kalitesini yordadığı ifade edilebilir.

Sonuç olarak, spor-fitness merkezi müşterilerinin devamlılığının ve işletmenin sürdürülebilirliğinin sağlanmasında sadece tek faktörün etkili olamayacağı düşünülmektedir. Çünkü bireysel tüketici memnuniyetini etkileyebilecek müşteri beklentileri, ekipmanlar, fitness merkezinin deneyimi, müşteri sadakati, fiziki görünüm gibi etmenlerin göz önünde bulundurulması önemli faktörlerdir. **Anahtar Kelimeler:** Hizmet kalitesi, Spor, Fitness merkezleri, Lojistik regresyon

<sup>1</sup> Manisa Celal Bayar University, Faculty of Sports Sciences,

<sup>2</sup> Ömer Halisdemir University, School of Physical Education and Sports

<sup>3</sup> Pamukkale University, Faculty of Sports Sciences

<sup>4</sup> Karabük University, School of Foreign Languages

## INTRODUCTION

The concept of service is generally defined as any activity or benefit that one presents to another, whose ownership cannot be transferred to the other, and especially abstract (Kotler, 1997; Kotler, Wong, Saunders & Armstrong 2005). Also, Pine and Gilmore (1998) expressed "service" as a set of intangible positive activities which provide customer time, place, form and psychological benefits. The concept of service, which individuals experience in different sectors by means of creating a competitive environment, can increase the level of competition in sport sector as well as in other sectors (Yerlisu Lapa & Baştaç, 2012). In this competitive environment, sports entrepreneurs have made a great effort to sustain their assets, grow economically and increase their customer potential.

Fitness centers, which provide physical activity services in the context of health and strength, have become one of the most important service areas of health and sports sector in recent years (Tüfekçi, 2010). It is noted that around 46,500 sports and fitness centers in Europe operate in health and fitness sector and more than 400,000 people work in these fitness centers. It is also seen that these fitness centers serve more than 46 million customers and attract attention as an industry generating about 25.2 billion Euros (European Health & Fitness Association, 2016). In recent years, fitness centers in Turkey have drawn attention as one of the most important service areas of sports and health care sector. As in other sectors, intense competition have remarkably been established among businesses in this area with the increase of fitness centers in Turkey (Yıldız & Tüfekçi, 2010). It is stated that the increase in the pressure of this competition, especially on company managers, has led companies to differentiate products / services in order to attract new customers or to protect existing customers (Moxham & Wiseman, 2009). It can also be

expressed that businesses are more concerned with features that will contribute to distinguishing and competitive advantage such as the application of modern and professional management strategies and the upgrading of quality standards. Ogorelc & Sonj (1998) consider service quality as a useful application area among competitive strategies in acquiring competitive advantage which is an important factor affecting customer choice by having an effect upon customer satisfaction. On the other hand, Srivastava & Narendra (2013) point out that service sector has become a driving force behind the economy in developed and developing countries as a result of a rapid growth in the service sector and this situation has led firms to do research on service quality to take advantage in competition.

It is expressed that service quality is one of the basic elements of customer perception (Gonzalez & Brea, 2008). Since, the quality of service indicates the customer's global judgment regarding service superiority (Parasuraman, Zeithaml & Berry, 1988). In the light of this information, it can be said that the quality of service for all firms or organizations has become a necessary factor to survive and increase their competitive power (Srivastava & Narendra, 2013).

Sports facilities are regarded as an indispensable element for managers to improve service quality, increase and maintain customer base, gain competitive advantage and provide sustainable income from customers (Yu et al., 2014). It is also explained that some factors such as parking, cleanliness, facility occupancy, ventilation and food service, etc. are important factors to maintain the facilities and provide attendance to the activities (Wakefield & Sloan, 1995). On the other hand, the importance of service quality in sports facilities is an accepted condition for both academicians and managers (Milne & McDonald, 1999).

Research on sport services suggests that the quality of service is related to sport consumption behaviours (Biscaia et al., 2013, Byon et al., 2013, Theodorakis & Alexandris, 2008).

According to Yıldız (2012), fitness centers, which are considered as service businesses, are expressed as "places where people's needs are met such as healthy life, fitness, losing weight, body building". Within the service sector, sports and fitness services constitute an important service area depending on customers' communication with physical environment, spending a relatively long time in sports and fitness facilities, participating sport events as a spectator and being participants in fitness centers (Theodorakis et al., 2014). Moreover, in order to provide more customer satisfaction, service providers give importance to increase service quality as well as in all sectors (Fitzsimmons & Fitzsimmons, 1994). It is stated that high quality service standards help to maintain loyal customers and satisfied customers who give some advice to their friends about products and services by word of mouth marketing (Carter, 2009). At this point, the effect of service quality of businesses on customers becomes prominent (Yıldız & Tüfekçi, 2010).

In the literature, many models have been developed to measure and conceptualize service quality perceptions of individuals until today (Alexandris et al., 2004; Athanassopoulos, 2000; Cronin & Taylor, 1992; Dabholkar, Thorpe & Rentz, 1996; Parasuraman, Berry, & Zeithaml, 1988; Parasuraman, Zeithaml & Berry 1994). SERVQUAL, which is the most important of these developed models, seems to be widely used by many researchers in different fields (health, banking, education, sports, etc.) (Babakus & Mangold, 1992; Bisschoff & Lotriet, 2009; Chang, Zhu & Wang, 2011; Dölarslan & Özer, 2014; Kaura, Datta & Vyas, 2012; Larson & Steinman, 2009; Parasuraman, Parasuraman et al., 1991;). Also some other studies are available in the

literatures that offer different approaches to measure service quality perceptions of customers in sports and fitness centers (Chelladurai & Chang, 2000; Chelladurai, Scott & Haywood-Farmer, 1987; Fernandez et al., 2012; Lam, 2000; Lam et al., 2005; Ko & Pastore, 2005; Theodorakis et al., 2001; Papadimitriou & Karteliotis, 2000; Theodorakis et al., 2014). For example, Lam (2000) developed Service Quality Assessment Scale (SAS) to determine the service quality dimension of health-fitness clubs. At this scale, five factors (staff, program, changing rooms, physical facility and training facility) of the service quality provided by a fitness club were revealed. Also, Fernandez et al. (2012) found that price, basic services, trainers, functionality, design, physical facilities, accessibility and membership etc. are the elements that show the quality of fitness centers. Therefore, it can be argued that providing service quality at a high level is now being explored not only in product or manufacturing sector, but also in service sector such as fitness centers (Aslan & Koçak, 2011). Researches related to sports and fitness centers seem to focus on determining quality dimensions for some service areas (eg, sports services, entertainment services, recreational services) (Moxham & Wiseman, 2009; Tsitskari, Tsiotras & Tsiotras, 2006). Considering these studies, it can be stated that studies on quality perception in sports center services are limited in terms of scope.

In this research, important and effective elements of service quality that customers perceive are tried to be revealed for businesses in the sector by determining the factors of service quality that fitness center members perceive. It is evaluated that research findings will contribute to the development of suggestions in the context of concrete evidence about what can be done to improve the quality of service in sports and fitness centers.

## MATERIAL and METHOD

### Research Model

This research is a descriptive study. In the research, scanning method was chosen from quantitative research methods.

### Study Group

A total of 691 (301 female and 390 male) fitness center members, who are at an average age of  $25.04 \pm 4.73$  and volunteer, participated in the study from six private fitness centers operating in İzmir (Table1).

Table 1. Percentage and frequency table for some characteristics of participants

Variables		f	%	Total
Gender	Female	301	43.6	691
	Male	390	56.4	
Educational Background	Primary	39	5.7	690
	High School	120	17.4	
	Associate/Bachelor's	476	69.0	
	Postgraduate	55	8.0	

### Data Collection Tool

In this research, survey method was used as a data collection technique. In the first part of data collection tool, 9-item personal information form is included and "Sports Fitness Center-Perceived Service Quality Scale" developed by Uçan (2007) was used in the second part.

*Personal Information Form:* This section includes expressions designed to determine age, gender, level of education, perceived program fee, the frequency of doing exercise, individual sport experience and being member to another sports center in the past.

*Sports Fitness Center-Perceived Quality Service Scale (SFC-PSQS):* The measuring tool developed by Uçan (2007) has a likert type structure with 5 items consisting of 31 items and 6 sub-dimensions. Total score feature is not available for this scale. The first dimension is Interaction Quality with 10 items (factor loadings: between 0.63 and 0.78, alpha coefficient  $\alpha=0.95$ ), the second dimension is Outcome Quality with 5 items (factor loadings: between 0.75 and 0.83, alpha coefficient  $\alpha=0.92$ ), the third dimension is Physical Environment Quality with 7 items (factor loadings: between 0.40

and 0.74, alpha coefficient  $\alpha=0.85$ ), the fourth dimension is Exercise Tools and Equipments with 3 items (factor loadings: between 0.67 and 0.76, alpha coefficient  $\alpha=0.82$ ), the fifth dimension is Programme Quality with 3 items (factor loadings: between 0.66 and 0.76, alpha coefficient  $\alpha=0.83$ ) and the sixth dimension is Environmental Conditions Quality with 3 items (factor loadings: between 0.68 and 0.75, alpha coefficient  $\alpha=0.77$ ). For this research, the Cronbach Alpha coefficient was found to be  $\alpha=0.96$ .

### Collection of Data

Twelve trained assistants were asked for their help to collect the research data. The assistants have been provided detailed information about the points to be considered when completing the questionnaire. The assistants went in groups of two to the 6 sports centers selected through the accessible sample and let participants have the questionnaire by face to face interview method. A total of 750 questionnaires were collected from participants. The researchers cancelled 59 survey forms which they identified as missing or incorrectly completed and 691 of them were accepted as valid and evaluated.

## Analysis of Data

The percentages, frequencies and arithmetic averages of the obtained data are given in the statistical tables. In the framework of central limit theorem, parametric test statistics were used directly, since the sample numbers are very reasonable. Arithmetic mean, standard deviation and correlation (Pearson correlation)

values for the scale sub-dimensions were examined. Independent Samples T-test was used in order to determine the difference between two variables and scale sub-dimensions. Also, Logistic regression analysis was applied to calculate the probability of a two-state (program fee: not expensive-expensive) result over one or more independent variables.

## RESULTS

In this part of the study, the findings of statistical analysis of obtained data are included.

Table 2. Arithmetic mean and standard deviation values of SFC-PSQS sub-dimensions of participants

Variables	$\bar{x}$	SS	N
Physical Environmental Quality	3.66	0,84	691
Environmental Conditions Quality	3.81	0,84	
Exercise Tools and Equipments	3.78	0,91	
Programme Quality	3.76	0,88	
Interaction Quality	3.87	0,78	
Outcome Quality	3.97	0,87	

When Table 2 is evaluated, output quality perception was found as the highest arithmetic average value ( $\bar{x} = 3.97$ ,  $ss=0.87$ ).

Table 3 gives the correlation values that show the relationship between the scale sub-dimensions.

Table 3. Relationships between SFC-PSQS sub-dimensions (Pearson Correlation)

Variables	1	2	3	4	5	6
1- Physical Environmental Quality	1	0.64**	0.59**	0.60**	0.60**	0.53**
2- Environmental Conditions Quality		1	0.66**	0.60**	0.59**	0.49**
3- Exercise Tools and Equipments			1	0.71**	0.66**	0.59**
4- Programme Quality				1	0.70**	0.57**
5- Interaction Quality					1	0.77**
6- Outcome Quality						1

$p < 0.01$

When Table 3 is examined, it is seen that all sub-dimensions have a moderate and high level of meaningful relationship between each other in the positive direction ( $p < 0.01$ ). Among these sub-dimensions, the highest significant correlation was found

between interaction quality and output quality ( $r=0.71$ ) sub-dimensions.

Table 4 shows the results of Independent T-test for SFC-PSQS sub-dimensions according to the participants' perceived program fee.

Table 4. SFC-PSQS sub-dimension difference table according to the program fee perception

		Groups	N	$\bar{x}$	ss	df	t	p
Is the programme fee expensive?	Physical Environmental Quality	Expensive	244	3.36	0.92	686	-7.17	0.00
		Not expensive	444	3.83	0.75			
	Conditions Quality	Expensive	244	3.55	0.85	476.52	-6.02	0.00
		Not expensive	444	3.95	0.81			
	Exercise Tools and Equipments	Expensive	244	3.52	0.90	490.54	-5.75	0.00
		Not expensive	444	3.93	0.87			
	Programme Quality	Expensive	244	3.51	0.91	686	-5.58	0.00
		Not expensive	444	3.89	0.83			
	Interaction Quality	Expensive	244	3.71	0.75	519.49	-4.34	0.00
		Not expensive	444	3.97	0.78			
Outcome Quality	Expensive	244	3.81	0.86	495.44	-3.83	0.00	
	Not expensive	444	4.07	0.85				

When Table 4 is examined, it is seen that the perception of program fee formed in the individuals constitutes significant differences ( $p < 0.01$ ) in all sub-dimensions in terms of service quality. Arithmetic averages were analyzed to interpret meaningful differences and it was determined that service quality perceptions of

participants who evaluated the program fee as expensive were significantly lower in all sub-dimensions.

In Table 5, Independent T-test was performed for the SFC-PSQS sub-dimensions according to the participants' experience of being a member of another sports center.

Table 5. SFC-PSQS sub-dimension difference table according to the past experience of being a member of another sports center

		Groups	N	$\bar{x}$	ss	df	t	p
Have you ever been a member of a sport center?	Physical Environmental Quality	Yes	432	3.75	0.83	541.72	3.59	0.00
		No	259	3.51	0.84			
	Conditions Quality	Yes	432	3.86	0.83	524.44	2.03	0.04
		No	259	3.72	0.87			
	Exercise Tools and Equipments	Yes	432	3.89	0.87	508.41	4.08	0.00
		No	259	3.60	0.94			
	Programme Quality	Yes	432	3.84	0.84	499.51	3.34	0.00
		No	259	3.61	0.93			
	Interaction Quality	Yes	432	3.93	0.75	689	2.36	0.02
		No	259	3.78	0.82			
Outcome Quality	Yes	432	4.07	0.80	689	3.92	0.00	
	No	259	3.81	0.94				

Significant differences are seen ( $p < 0.05$ ) in all sub-dimensions according to Table 5. When arithmetic averages were examined to interpret the generated differences, it was found that the participants who had previously experienced membership in

another sports center have higher service quality perceptions than others. Table 6 shows the results of the Independent t-test for the SFC-PSQS sub-dimensions according to whether the participants had previously done sports.

Table 6. SFC-PSQS sub-dimensions difference table according to the athletics experience

	Groups	N	$\bar{x}$	ss	df	t	p	
<b>Athletics experience</b>	Physical Environmental Quality	Yes	471	3.73	0.84	418.67	3.03	<b>0.00</b>
		No	218	3.52	0.84			
	Environmental Conditions Quality	Yes	471	3.89	0.79	687	3.62	<b>0.00</b>
		No	218	3.64	0.94			
	Exercise Tools and Equipments	Yes	471	3.87	0.85	687	3.69	<b>0.00</b>
		No	218	3.60	1.01			
	Programme Quality	Yes	471	3.77	0.88	423.27	0.77	0.44
		No	218	3.72	0.88			
	Interaction Quality	Yes	471	3.92	0.76	400.09	2.20	<b>0.03</b>
		No	218	3.78	0.81			
	Outcome Quality	Yes	471	4.05	0.84	397.88	3.93	<b>0.00</b>
		No	218	3.81	0.90			

When the test results in Table 6 were examined, no significant differences were available in programme quality dimension, but significant differences ( $p < 0.05$ ) were found in all other dimensions. According to the obtained results, when the arithmetic averages are examined, it is determined that the service quality perceptions of the

individuals who had previous athletic experience are higher in all sub-dimensions.

Below are the results of the logistic regression analysis conducted to determine whether members predicted the perceived quality of service according to by program fees.

Table 7. Coding related to dependent variable

Original Value	Internal Value
Not expensive	0
Expensive	1

Table 7 contains the coding for the dependent (predicted) variable (program fee). When the table is examined it is seen that the category not expensive is coded as 0, and the

expensive category is coded as 1. In Table 8, the codings related to the dependent variable (program fee) are demonstrated.

Table 8. Classification results obtained from logistic regression model

	Actual / Observed Situation	Estimated Status		Accurate Classification Percentage
		Not expensive	Expensive	
Step 1	Not expensive	403	41	90.8
	Expensive	183	64	25.9
Total Accurate Classification Percentage				67.6

When the classification result obtained from the logistic regression model is examined, 403 members from 444 who stated programme fees as not expensive were correctly classified and

41 were misclassified according to the classification of predictor variables and the correct classification rate was 90.8%. 183 members from 247 who perceived program fees as expensive

were correctly classified and 64 members were misclassified and the classification rate was 25.9%. The total correct classification rate for the

intended model is 67.6% (Table 8). Results related to estimated coefficient of intended model variables are given in Table 9.

Table 9. Estimated coefficient of intended model variables

Variables	B	S.H.	Wald	df	p	Exp(B)
Constant	2.19	0.47	21.63	1	0.00	8.92
Physical Environmental Quality	-0.49	0.14	12.19	1	<b>0.00</b>	0.61
Environmental Conditions Quality	-0.21	0.14	2.10	1	0.15	0.81
Exercise Tools and Equipments	-0.18	0.15	1.52	1	0.22	0.84
Programme Quality	-0.15	0.15	0.98	1	0.32	0.86
Interaction Quality	0.24	0.20	1.38	1	0.24	1.27
Outcome Quality	0.02	0.15	0.01	1	0.92	1.02

Nagelkerke R<sup>2</sup>: 0.11; Sd=1; Model Accurate Classification Percentage =57.5; p<0.05; N=691

The test result of Hosmer and Lemeshow chi-square goodness of fit was found to be  $p > 0.05$ . This value indicates that the model-data fit is in adequate level ( $p = 0.21$ ). This implies that there is no difference between the observed and predicted values of the model.

In the logistic regression analysis model; coefficients, standard errors, Wald statistics, degrees of freedom for Wald statistics, significance level of coefficients ( $p$ ), R values, Exp (B) and 95% confidence interval values for variables are presented. When correlation in Table 9 is examined, it is determined that only "physical environmental quality" variable from

the perceived service quality sub-dimensions has an effect on the program fee level of the members ( $p < 0.01$ ). It seems that 1 unit increase in the physical environment quality variable caused 6.1% decrease in the odds value of "prediction related to the program fee". Odds value refers to the probability ratio of customers' perception that the fee is not expensive to the probability of being expensive. According to Exp values (B) above, the quality of physical environment seems to be the most important factor in reaching the perception that the price is cheap. It can be stated that 11% of the total variance of program fee levels predicts perceived service quality.

## DISCUSSION AND CONCLUSION

In today's sports industry where global differentiation is experienced, it is known that service and service quality are important factors in having a sustainable structure for businesses. In recent years, researchers have been striving to express service quality in relation to sports facilities and programs (Tsuji, Bennett, & Zhang, 2007). In this context, this research

aims to investigate the variables that determine the service quality perceived by fitness center members. Notably by the help of technological developments, important changes are seen in participation to sport activities. In this direction, individuals tend to go to the sports centers in order to be able to do both sports and live a healthy life. Therefore sports centers struggle to gain more customers and then provide quality services to their customers.



Sports centers can continue their existence depending on their service quality that they offer for their customers (Kim, Bae, Kim & Lee, 2016; Uçan, 2007). This is why sport centers tend to follow developments and provide quality services constantly.

When the averages of service quality scale sub-dimensions are examined, it is seen that sub-dimension averages have value above the average and output quality perception (basic service) has a significant average ( $\bar{x} = 3.97$ ,  $ss=0.87$ ). It is thought that the output quality perception is high due to the benefit that the customers have obtained from the service. It can be stated that the researchers conducted in the field are similar to the results of current research (Ko & Pastore, 2005).

It was found that a high significant relationship is available between interaction quality and output quality sub-dimensions ( $r=0.71$ ). The data obtained reveal that there is a medium and high level relationship between the sub-dimensions in the positive direction. The existence of the relationship between the quality of interaction and the quality of output can be considered to be focused on the individual's expectations about sports centers, attitudes and behavior changes. It has been pointed out that fitness centers need to establish and maintain positive relationships with their members. In other words sport centers need to have interaction with their members (Fernand, Robinson & Valette-Florence, 2010). In the study conducted by Yıldız (2012), it was emphasized that the attitudes and behaviors of employees towards customers are important for customer relations.

It is seen that individuals' program fee perception has significant differences in service quality in all sub dimensions

( $p<0.01$ ). Service quality perceptions of participants who evaluated program fees as expensive were also found to be significantly lower in all sub-dimensions. It is indicated that socio-demographic characteristics such as environment, gender, income etc. of customers affect the expectations of service quality perceived from the sports facilities (Tsuji, Bennett, & Zhang, 2007; Yu et al. 2014). In another study, it was stated that high satisfaction provided by fitness centers decreased consumers' price sensitivity (Yıldız, 2012).

According to the obtained data, it was found that service quality perceptions of participants who had experience of membership in another sports center in the past are higher than others. This suggests that past experience may have an important influence on individuals' service quality. In addition, when the averages of service quality perception of participants who had athletics experience is compared to ones who didn't have, it is seen that service quality perceptions of ones who had athletics experience are higher than others.

As a result of logistic regression analysis, while the physical environment quality were determined to be a significant predictor of programme fee level; environmental conditions, exercise tools and equipments, programme quality, interaction quality and output quality did not predict the program fee. It is known that environment design, specifications of equipment and suitability of physical conditions are basic qualities which customers give importance in their preferences (Ko & Pastore, 2005). However, participants indicated that the quality of physical environment is an important feature of service quality (Greenwell, Fink, & Pastore, 2002; Kim et al., 2016; Zhang

et al., 2004). In another study, a positive relationship was stated between service quality and customer satisfaction (Lee & Kim, 2014).

In the literature, there are many researches that indicate a significant relationship between service quality in sports, perceived value, purchasing and customer satisfaction (Alexandros et al., 2004, Bodet, 2006; Yıldız, 2012, Yıldız, Onağ, & Onağ, 2013, Woodruff, 1997). As a result, it is considered that only one factor cannot be effective in

ensuring the continuity of customers and the sustainability of business. This is because factors such as customer expectations, equipments, experience of fitness center, customer loyalty, physical appearance that may affect individual consumer satisfaction are important factors. On the other hand, in order to increase members' perceptions of descending service quality, establishing and maintaining innovative marketing principles can be effective in providing both customer retention and competitive advantage.

## REFERENCES

1. Alexandris, K., Zahariadis, P., Tsozbatzoudis, C., & Grouios, G. (2004). An Empirical investigation of the relationships among service quality, customer satisfaction and psychological commitment in a health club context. *European Sport Management Quarterly*, 4(1), 36–52.
2. Aslan, M., & Koçak, M. S. (2011). Determination of the service quality among sport and fitness centers of the selected universities. *International Journal of Human Sciences*, 8 (2): 817-833.
3. Athanassopoulos, A. D. (2000). Customer satisfaction cues to support market segmentation and explain switching behavior. *Journal of Business Research*, 47, 191-207.
4. Babakus, E., & Mangold, G.W. (1992). Adapting the SERVQUAL scale to hospital services: An empirical investigation. *Health Services Research*, 26 (6), 767-786.
5. Biscaia, R., Correia, A., Masayuki, Y., Rosado, A., & Marôco, J. (2013). The role of service quality and ticket pricing on satisfaction and behavioural intention within professional football. *International Journal of Sports Marketing & Sponsorship*, 14(4): 301-325.
6. Bisschoff, C. A., & Lotriet, R. A. (2009). The service quality of the PUK rugby institute. *Tydskrif vir Geesteswetenskappe*, 49(2), 266-286.
7. Bodet, G. (2006). Investigating customer satisfaction in a health club context by an application of the tetraclasse model. *European Sport Management Quarterly*, 6(2), 149-165.
8. Byon, K.K., Zhang, J.J. & Baker, A.T. (2013). Impact of core and peripheral service quality on consumption behavior of professional team sport spectators as mediated by perceived value. *European Sport Management Quarterly*, 13(2): 232-263.
9. Carter, R.E. (2009). The Impact of perceived service quality on MBA student satisfaction and recommendations: Do expectations matter? *Services Marketing Quarterly*, 30: 234–248.
10. Chang, Y. P., Zhu, D. H., & Wang, H. S. (2011). Influence of service quality on gamer loyalty in massively multiplayer online role-playing games. *social behavior and personality*, 39(10), 1297-1302.
11. Chelladurai, P., & Chang, K. (2000). Targets and standards of quality in sport services. *Sport Management Review*, 3, 1–22.
12. Chelladurai, P., Scott, F. L., & Haywood-Farmer, J. (1987). Dimensions of fitness services: Development of a model. *Journal of Sport Management*, 1, 159- 172.
13. Cronin, J.J., & Taylor, S.A. (1992). Measuring service quality: A Reexamination and extension. *Journal of Marketing*, 56(3): 55-68.
14. Dabholkar, P. A., Thorpe, D. I., & Rentz, J. (1996). A Measure of service quality for retail stores: Scale development and validation. *Journal of The Academy of Marketing Science*, 24(1): 3–16.
15. de Barros, C., & Gonçalves, L. (2009). Investigating individual satisfaction in health and fitness training centres. *International Journal of Sport Management and Marketing*, 5(4): 384-395.
16. Dölarlan, E. Ş. & Özer, A. (2014). Hizmet kalitesi, tatmin ve güvenin daha fazla ödeme eğilimi üzerindeki etkileri. *Anadolu Üniversitesi Sosyal Bilimler Dergisi*, 14 (1):31-58 [In Turkish].
17. European Health & Fitness Association. (2012). <http://www.ehfa.eu>. Access Date, 21.2.2016.
18. Fernandez, J., Carrion, G., & Ruitz, D. (2012). La Satisfaccion de clientes y su relacion con la percepcion de calidad en centro de fitness: Utilizacion de la escala CALIDFIT. *Revista De Psicología Del Deporte*, 21(2): 309-319.
19. Ferrand, A., Robinson, L., & Valette-Florence, P. (2010). The intention-to-repurchase paradox: A case of the health and fitness industry. *Journal of Sport Management*, 24(1): 83-105.
20. Fitzsimmons, J. A., & Fitzsimmons, M. J. (1994). *Service management for competitive advantage*. New York, NY: Mcgraw-Hill.
21. González, M. E. A., & Brea, J. A. F. (2005). An investigation of the relationship among service quality, customer satisfaction and behavioural intentions in Spanish health spas. *Journal of Hospitality & Leisure Marketing*, 13(2): 67-90

22. Greenwell, T. C., Fink, J. S., & Pastore, D. L. (2002). Assessing the influence of the physical sports facility on customer satisfaction within the context of the service experience. *Sport Management Review*, 5(2): 129-148.
23. Kaura, V., & Datta, S. K., Vyas, V. (2012). Impact of service quality on satisfaction and loyalty: Case of two public sector banks. *Vilakshan: XIMB Journal of Management*, 9(2):65-76.
24. Kim, K.T., Bae, J., Kim J.C., & Lee, S. (2016). The Servicescape in the fitness center: measuring fitness center's services. *International Journal of Sport Management Recreation & Tourism*, 21, 1-20.
25. Kim, S. K., Yim, B. H., Byon, K. K., Yu, J. G., Lee, S. M., & Park, J. A. (2016). Spectator perception of service quality attributes associated with Shanghai Formula One: Importance and performance analysis approach. *International Journal of Sports Marketing and Sponsorship*, 17(2), 153-171.
26. Ko, Y. J., & Pastore, D. L. (2005). A hierarchical model of service quality for the recreational sport industry. *Sport Marketing Quarterly*, 14(2), 84-97.
27. Kotler, P. (1997). *Marketing: An Introduction*. Second Edition, USA: Prentice McGraw-Hill Companies.
28. Kotler, P., Wong, V., Saunders, J., & Armstrong, G. (2005). *Principles of Marketing (4th European Edition)*. Prentice Hall.
29. Lam, E.T.C. (2000). Service Quality Assessment Scale: An instrument for evaluating service quality of health fitness clubs (A Dissertation for the Partial Fulfilment of the Requirements for the Degree Doctor of Philosophy Presented to the Faculty of the College of Education, University of Houston).
30. Lam, E.T.C., Zhang, J.J. & Jensen, B.E. (2005). Service Quality Assessment Scale (SQAS): An instrument for evaluating service quality of health-fitness clubs. *Measurement in Physical Education and Exercise Science*, 9(2), 79-111.
31. Larson, B. V., & Steinman, R. B. (2009). Driving NFL fan satisfaction and return intentions with concession service quality. *Services Marketing Quarterly*, 30(4), 418-428.
32. Lee, S. Y., & Kim, J. H. (2014). Effects of servicescape on perceived service quality, satisfaction and behavioral outcomes in public service facilities. *Journal of Asian Architecture and Building Engineering*, 13(1), 125-131.
33. Milne, G. R., & McDonald, M. A. (1999). *Sport marketing: Managing the exchange process*. Jones & Bartlett Learning.
34. Moxham, C., & Wiseman, F. (2009). Examining the development, delivery and measurement of service quality in the fitness industry: A Case study. *Total Quality Management*, 20, 467-482.
35. Ogorelc, A., & Snoj, B. (1998). Guests' satisfaction with tourism services: A Case of health resorts in Slovenia. *Tour Rev*. 2, 38-45.
36. Papadimitriou, D. A. & Karteliotis, K. (2000). The service quality expectations in private sport and fitness centers: A Re-examination of the factor structure. *Sport Marketing Quarterly*, 9(3), 158-164.
37. Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1994). Reassessment of expectations as a comparison standard in measuring service quality: Implications for future research. *Journal of Marketing*, 58, 111-124.
38. Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1991). Refinement and reassessment of The SERVQUAL scale. *Journal of Retailing*, 67(4), 420-450.
39. Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1988). SERVQUAL: A Multiple item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-40.
40. Srivastava, K., & Narendra, K. S. (2013). Service quality, corporate brand image, and switching behavior: The Mediating role of customer satisfaction and repurchase intention. *Services Marketing Quarterly*, 34, 274-291.
41. Theodorakis, N. & Alexandris, K. (2008). Can service quality predict spectators' behavioral intentions in professional soccer?. *Managing Leisure*, 13(3): 162-178.
42. Theodorakis, N. D., Howat, G., Ko, Y.J., & Avourdiadou, S. (2014). A comparison of service evaluation models in the context of sport and fitness centres in Greece. *Managing Leisure*, 19(1): 18-35.
43. Theodorakis, N., Kambitsis, C., & Laios, A. (2001). Relationship between measures of service quality and satisfaction of spectators in professional sports. *Managing Service Quality: An International Journal*, 11(6), 431-438.
44. Tsitskari, E., Tsiotras, D., & Tsiotras, G. (2006). Measuring service quality in sport services. *Total Quality Management*, 17(5): 623-631.
45. Tsuji, Y., Bennett, G., & Zhang, J. (2007). Consumer satisfaction with an action sports event. *Sport Marketing Quarterly*, 16(4), 199.
46. Tüfekçi, Ö. (2010). Fitness merkezi müşterilerinin hizmet kalitesine yönelik beklenti ve algılarının değerlendirilmesi. Yayınlanmamış Yüksek Lisans Tezi. Balıkesir: Balıkesir Üniversitesi, Sosyal Bilimler Enstitüsü. [In Turkish].
47. Uçan Y. (2007). Spor-fitness merkezlerinin algılanan hizmet kalitesi ölçeğinin geliştirilmesi. Yayınlanmamış Doktora Tezi, Abant İzzet Baysal Üniversitesi, Sosyal Bilimler Enstitüsü. [In Turkish].
48. Wakefield, K.L., & Sloan, H.J. (1995). The effects of team loyalty and selected stadium factors on spectator attendance. *Journal of Sport Management*, 9, 153-172.
49. Woodruff, R. B. (1997). Customer value: the next source for competitive advantage. *Journal of the academy of marketing science*, 25(2), 139-153.
50. Yerlisu Lapa, T., & Baştaç, E. (2012). Evaluating the service quality assessment of individuals attending fitness centers in Antalya. *Pamukkale Journal of Sport Sciences*, 3(1), 42-52.
51. Yıldız, S., & Tüfekçi, Ö. (2010). Fitness merkezi müşterilerinin hizmet kalitesine yönelik beklenti ve algılarının değerlendirilmesi. *Balıkesir*

- Üniversitesi, Sosyal Bilimler Enstitüsü Dergisi, 13(24):1-11. [In Turkish]
52. Yıldız, Y. (2012). Fitness merkezlerinde müşteri tatmininin müşteri sadakati üzerindeki etkisinin araştırılması. *Selçuk Üniversitesi Beden Eğitimi ve Spor Bilim Dergisi*, 14(2), 217-222.[In Turkish]
53. Yıldız, Y., Onağ, Z., & Onağ, A. O. (2013). Spor ve rekreasyon hizmetlerinde algılanan hizmet kalitesinin incelenmesi: fitness merkezi örneği. *Uluslararası Hakemli Beşeri ve Akademik Bilimler Dergisi*, 2(3): 114-130. [In Turkish]
54. Yu, H. S., Zhang, J. J., Kim, D. H., Chen, K. K., Henderson, C., Min, S. D., & Huang, H. (2014). Service quality, perceived value, customer satisfaction, and behavioral intention among fitness center members aged 60 years and over. *Social Behavior and Personality: an international journal*, 42(5), 757-767.
55. Zhang, J.J., Connaughton, D.P., Ellis, M.H., Braunstein, J.R., Cianfrone, B., & Vaughn, C. (2004). Consumer expectations of market demand variables of an NFL expansion team. *Journal of Contemporary Athletics*, Vol. 1 No. 1, pp. 15-39.

