



THE EFFECT OF SERVICE QUALITY ON SATISFACTION OF ATHLETES PARTICIPATING IN SPORT PROGRAMMESⁱ

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Abstract:

In this study, the effect of perceived service quality of the athletes participating in sports programmes of a public institution on their satisfaction levels was investigated. Two measurement instruments were used as data collection tools in this study. The QSport-14 scale, consisting of 14 items and 3 sub-dimensions (staff, installations, and programme) developed by Yildiz and Kara (2012), was used to measure service quality perceptions of the athletes. In order to measure satisfaction perceptions of the athletes, a 3-item and one-dimensional satisfaction scale developed by Cronin, Brady, and Hult (2000), was used. The study population of this study was Izmir Provincial Directorate of Youth and Sports and the sample was composed of athletes (n = 286) who participated in sports programmes of this institution. Descriptive statistics, correlation analysis, factor analysis, and hierarchical regression analysis were used for data analysis. Reliability of the scales was determined by Cronbach's Alpha coefficient. According to findings obtained from the analyses, scales used in this study were found to be consistent with original scales in terms of validity and reliability. According to findings of hierarchical regression analysis, staff dimension, which was sub-dimension of service quality, had a significant and positive effect on customer satisfaction ($\beta = .210$; $p < 0.01$). While installations dimension, which was sub-dimension of service quality, had no significant effect on customer satisfaction; programme size had a significant and positive effect on customer satisfaction ($\beta = .567$; $p < 0.01$). In general, service quality had a significant and positive effect on customer satisfaction ($\beta = .435$; $p < 0.01$).

Keywords: sports services quality, athletes, sports programme

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1. Introduction

Since the mid-20th century, there has been a significant growth trend in the sports and physical activity services sector, as in-service sectors. Increasing the purchasing power and free time of individuals, developments in sports education and management, increasing sports products, technological developments, increasing mass communication have been effective in the growth of this sector (Mahony and Howard, 2001). Nowadays, sports and physical activities are carried out by people in a professional way, as well as to stay healthy. In this context, production function of sports and physical activity services are performed by enterprises such as sports club, sports school, sports center, and fitness center (Yildiz, 2009).

An increase in the demand for sports and physical activity services and the increase in the number of enterprises providing these services have led to competition in this sector as in other sectors. It is a fact that sports enterprises face the necessity of developing customer-oriented strategies in order to survive in an intensely competitive environment. Businesses that succeed in competition survive, while those who fail are forced to withdraw from the market. This situation raises the impact of service quality on customer and leads to the development of customer-based efforts to ensure customer satisfaction (Yildiz, 2008).

Service is defined as economic activities that create value and benefit for customers in special times and places (Lovelock, 2000). Service quality is seen as one of the main factors that affect a company's customer retention and long-term profitability (Zeithaml, Berry, and Parasuraman, 1996). Therefore, it is stated that service quality should be continuously measured and evaluated in order to meet customer expectations and needs (Lam, Zhang, and Jensen, 2005). Within this framework, in the last 40 years, serious researches have been made towards the development of measurement tools for service quality (Parasuraman, Zeithaml, and Berry, 1994). Although SERVQUAL, developed by Parasuraman, Zeithaml, and Berry (1985, 1988), is widely used to measure overall service quality, there are many studies emphasizing that this measurement tool cannot be valid in all services (Babakus and Boller, 1992; Buttle, 1996; Carman, 1990). Therefore, some researchers have set out to develop the measurement tool specific to the particular service sector. This approach has also influenced researchers working in the field of sports, and many measurement tools have been developed for sports and physical activity services. TEAMQUAL, developed to measure the service quality in professional team sports (McDonald, Sutton, and Milne, 1995), and SAFS, developed for fitness centers (Chelladurai, Scott, and Haywood-Farmer, 1987), and QSport-14 developed for sports centers (Yildiz and Kara, 2012) are examples of specific sectors.

When literature is reviewed, there are many researches dealing with service quality and customer satisfaction in the sports and physical activity sector. For example, studies on the golf club members (Lee et al., 2011) and on the healthy club (Konstantinos et al., 2004) are one of them. However, there are no studies examining the relationship between service quality and customer satisfaction in the context of swimming pool

facilities and programmes. Clarification of the impact of service quality on customer satisfaction in the context of swimming pool operation and programmes will enable business managers to understand the issue very well and thus identify weaknesses and areas to be developed in order to increase competitive advantage. Hence, in this study, it is aimed to examine the effect of service quality on customer satisfaction by focusing on swimming pool enterprises.

2. Method

2.1. Research Model

This study was formed according to the survey model. A survey model is a research approach that aims to describe an existing situation as it exists. The subject, individual or object that is subject of the research is tried to be defined in its own conditions and as it is. In this study, a group of samples from the universe were studied (Karasar, 2005:77).

2.2. Measurement Instruments

In this study, the QSport-14 scale, consisting of 14 items and 3 sub-dimensions (staff, installations, and programme) developed by Yildiz and Kara (2012), was used to measure the service quality perceptions of athletes. In order to measure satisfaction perceptions, 3-item and one-dimensional satisfaction scale developed by Cronin, Brady, and Hult (2000), was used.

Scale items were measured on a five-point Likert type scale ranging from 1=strongly disagree to 5=strongly agree.

2.3. Sample Size and Procedure

The sample of this study consists of athletes participating in sports programmes (jumping, triathlon, and swimming) in Izmir Provincial Directorate of Youth and Sports, in Turkey. The scale forms were distributed to 300 athletes with an emphasis on confidentiality and were asked to respond within a week. A total of 290 forms (149 girls and 141 boys) were returned, 4 forms with deficiencies were not considered and a total of 286 scale forms were found suitable for analysis.

2.4. Statistical Analysis

Descriptive statistics, correlation analysis, factor analysis and, hierarchical regression analysis were used for the data. Reliability of the scales was determined by Cronbach's Alpha coefficient.

3. Findings

3.1. Demographic Findings

According to demographic characteristics, number of female (51.7%) is slightly higher than that of male (48.3%). Swimming is the highest among the branches (71.3%). The

average age of the participants was 18.55, the average year of dealing with the branch was 5.29 and the average year of utilization of the facilities was 5.07 (Table 1).

Table 1: Demographic characteristics

Variables		f	%
Gender	Male	138	48.3
	Female	148	51.7
Branch	Jumping	48	16.8
	Triathlon	34	11.9
	Swimming	204	71.3
Other variables		M	SS
	Age	18.55	2.12
	Time to deal with the branch (year)	5.29	2.64
	Facility utilization time (year)	5.07	2.54

3.2. Validity and Reliability Analysis of the Scales

3.2.1. Validity Analysis of Service Quality Scale

Factor analysis findings of service quality scale were divided into 3 sub-dimensions consistent with the original scale: staff (1-5 items), installations (6-10 items), and programme (11-14 items). Factor loads of substances were higher than acceptable limit of 0.40. Factor loads of staff dimension were between 0.666 and 0.885; factor loadings of installations dimension were between 0.843 and 0.904 and programme dimension factor loads were between 0.631 and 0.908 (Table 2).

Table 2: Validity analysis results of service quality scale

Items	Staff	Installations	Programme
In this Sports Center...			
...staff are very kind and they treat customers with respect	.857		
...instructors are professional	.882		
...instructors are skilled and effective	.884		
...customers get personalized attention	.885		
...staff are interested for customers to come back	.666		
...physical environment is well-maintained		.843	
...sports areas are very nice		.896	
...sports areas are hygienic and very clean		.904	
...sports equipment are modern and sufficient		.862	
...dressing rooms, toilets and showers are well-kept and sufficient		.847	
...variety of physical activity and exercise programs are offered			.867
...rigorous and rich exercise programs are offered			.908
...programs during appropriate time periods are offered			.838
...class sizes in exercise programs are very appropriate			.631
Percentage of Variance Explained	29.790	25.854	20.548
Cumulative % of Variance Explained	29.790	55.644	76.192

3.2.2. Validity Analysis Results of Customer Satisfaction Scale

Factor analysis findings of customer satisfaction scale emerged as a single dimension consistent with the original scale. Factor loads of substances were higher than the acceptable limit of 0.40. The factor loadings of the items were between 0.958 and 0.976 (Table 3).

Table 3: Validity analysis results of customer satisfaction scale

Items	Satisfaction
My choice to purchase this sport program was a wise one	.968
I think that I did the right thing when I purchased this sport program	.976
This facility is exactly what is needed for this sport program	.958
Percentage of Variance Explained	93.557

3.3. Reliability Analysis of Scales

3.3.1. Reliability Analysis of Service Quality Scale

In reliability analysis conducted to determine the internal consistency of service quality scale, Cronbach Alpha value was found to be 0.875. Reliability findings for the sub-dimensions were highly reliable (Staff = 0.933; Installations = 0.886; Programme = 0.868).

3.3.2. Reliability Analysis of Customer Satisfaction Scale

In reliability analysis conducted to determine the internal consistency of customer satisfaction scale, Cronbach Alpha value was found to be 0.965. This value indicates that the scale is highly reliable.

3.4. Correlation Analysis

Correlation analysis showed that there was a significant and positive relationship between service quality and customer satisfaction ($r = 0.402$). Sub-dimensions of service quality also had a positive relationship with customer satisfaction. However, only staff dimension ($r = 0.175$) and programme dimension ($r = 0.562$) were significant. The highest relationship with customer satisfaction belongs to programme dimension (Table 4). On the other hand, none of demographic variables had a significant relationship with customer satisfaction.

Table 4: Results of correlation analysis

Variables	1	2	3	4	5	6	7	8
1. Gender	1							
2. Age	-.138*	1						
3. Time to deal with the branch	-.005	.259**	1					
4. Facility utilization time	-.023	.260**	.962**	1				
5. Installations	.191**	-.105	-.122*	-.140*	1			
6. Staff	-.075	.078	-.220**	-.207**	.179**	1		
7. Programme	.014	-.036	-.065	-.056	.278**	.383**	1	
8. Service quality	.021	-.004	-.193**	-.186**	.533**	.807**	.787**	1
9. Customer satisfaction	.042	.024	.086	.113	.097	.175**	.562**	.402**

**p < 0.01; *p < 0.05

3.5. Hierarchical Regression Analysis

3.5.1. Hierarchical Regression Analysis on the Effect of Staff Dimension on Customer Satisfaction

According to hierarchical regression analysis, staff dimension had a significant and positive effect on customer satisfaction ($\beta = .210$; $p < 0.01$). Demographic variables had no effect on customer satisfaction (Table 5).

Table 5: Results of the hierarchical regression analysis on the effect of staff dimension on customer satisfaction

Independent variables	Step 1			Step 2		
	Beta	t	p	Beta	t	p
1. Gender	.050	.846	.399	.062	1.064	.288
2. Age	.005	.076	.940	-.024	-.391	.696
3. Time to deal with the branch	-.324	-1.487	.138	-.264	-1.229	.220
4. Facility utilization time	.425	1.952	.052	.418	1.956	.051
5. Staff	-	-	-	.210*	3.493	.001
<i>F</i>		1.618			3.787	
<i>R</i> ²		.023			.063	
Adjusted <i>R</i> ²		.009			.047	

Note: Standardized beta values were used. * $p < 0.001$

3.5.2. Hierarchical Regression Analysis on the Effect of Installations Dimension on Customer Satisfaction

According to hierarchical regression analysis, installations dimension had no significant effect on customer satisfaction. There was a significant and positive effect on the customer satisfaction from demographic variables only at $p < 0.05$ level of utilization year variable (Table 6).

Table 6: Results of the hierarchical regression analysis on the effect of installations dimension on customer satisfaction

Independent variables	Step 1			Step 2		
	Beta	t	p	Beta	t	p
1. Gender	.050	.846	.399	.030	.496	.621
2. Age	.005	.076	.940	.010	.169	.866
3. Time to deal with the branch	-.324	-1.487	.138	-.339	-1.563	.119
4. Facility utilization time	.425	1.952	.052	.454**	2.088	.038
5. Installations				.115	1.896	.059
<i>F</i>		1.618			2.026	
<i>R</i> ²		.023			.035	
Adjusted <i>R</i> ²		.009			.018	

Note: Standardized beta values were used. * $p < 0.001$

3.5.3. Hierarchical Regression Analysis on the Effect of Programme Dimension on Customer Satisfaction

According to hierarchical regression analysis, programme size had a significant and positive effect on customer satisfaction ($\beta = .567$; $p < 0.01$). There was a significant and

positive effect on customer satisfaction from demographic variables only at $p < 0.05$ level of utilization year variable (Table 7).

Table 7: Results of the hierarchical regression analysis on the effect of programme dimension on customer satisfaction

Independent variables	Step 1			Step2		
	Beta	t	p	Beta	t	p
1. Gender	.050	.846	.399	.043	.880	.379
2. Age	.005	.076	.940	.016	.307	.759
3. Time to deal with the branch	-.324	-1.487	.138	-.238	-1.330	.185
4. Facility utilization time	.425	1.952	.052	.372	2.076	.039
5. Programme	-	-	-	.567*	11.669	.000
<i>F</i>		1.618			29.150	
<i>R</i> ²		.023			.342	
Adjusted <i>R</i> ²		.009			.331	

Note: Standardized beta values were used. * $p < 0.001$

3.5.4. Hierarchical Regression Analysis on the Effect of Service Quality on Customer Satisfaction

According to hierarchical regression analysis, service quality had a significant and positive effect on customer satisfaction ($\beta = .435$; $p < 0.01$). There was a significant and positive effect of demographic variables on customer satisfaction at the level of utilities only at $p < 0.05$ (Table 8).

Table 8: Results of the hierarchical regression analysis on the effect of service quality on customer satisfaction

Independent variables	Step 1			Step2		
	Beta	t	p	Beta	t	p
1. Gender	.050	.846	.399	.039	.718	.473
2. Age	.005	.076	.940	-.018	-.331	.741
3. Time to deal with the branch	-.324	-1.487	.138	-.238	-1.205	.229
4. Facility utilization time	.425	1.952	.052	.429	2.177	.030
5. Service Quality				.435*	7.997	.000
<i>F</i>		1.618			14.376	
<i>R</i> ²		.023			.204	
Adjusted <i>R</i> ²		.009			.190	

Note: Standardized beta values were used. * $p < 0.001$.

4. Discussion and Conclusion

In this study, the effect of service quality perceptions of athletes participating in sports programmes in a public institution on customer satisfaction was investigated. The studies on customer satisfaction of service quality in marketing literature are quite high. In sports sector, similar studies have been conducted in private and public enterprises. However, no study on the effect of service quality on customer satisfaction has been found on athletes benefiting from swimming pool facilities. Therefore, this study focuses on the

effect of service quality on athlete satisfaction in the context of jumping, triathlon, and swimming programmes. It is thought that results obtained will contribute to sports marketing literature.

In this study, validity and reliability analyses were performed on the scales used as data collection tools before seeking answers to “research questions”. As a result of the analyzes, it was seen that validity and reliability values of the QSport-14 scale developed by Yildiz and Kara (2012) to measure service quality perceptions of the athletes were consistently high with the original scale. Similarly, validity and reliability values of satisfaction scale developed by Cronin, Brady and Hult (2000) to measure athletes' perception of satisfaction were found to be consistent with the original scale. According to these results, it can be said that the subsequent hierarchical regression analysis of this study yields healthier results.

As a result of hierarchical regression analysis, a significant and positive effect ($\beta = .210$; $p < 0.01$) of staff dimension, which is the sub-dimension of service quality, on customer satisfaction was found. While installations dimension, which is the sub-dimension of service quality, had no significant effect on customer satisfaction; programme size had a significant and positive effect on customer satisfaction ($\beta = .567$; $p < 0.01$). Overall, a significant and positive effect of service quality on customer satisfaction ($\beta = .435$; $p < 0.01$) was observed. These findings are consistent with similar studies in literature (Andam, Montazeri, Feizi, and Mehdizadeh, 2015; Caslavova and Cmakalova, 2015; Filho, Campos, and Dantas, 2013; Serrano and Segado, 2015).

However, in this study, the effect of installations dimension on customer satisfaction was positive, but its significance was limited ($p = .057$). This is due to the fact that some of the athletes participating in the study are under the age of 18, so this age group may not have considered the physical characteristics of the facilities too much. In addition, hierarchical regression analysis showed that year of the utilization of facilities, which is one of independent variables, has a significant and positive effect on customer satisfaction. It can be said that the athletes become more accustomed to the facilities as the utilization period increases, which has a positive effect on their satisfaction.

Results of this study showed that service quality had a positive effect on customer satisfaction, thus confirming the researches conducted in literature. Considering that the most effective advertising in marketing is word-of-mouth communication (Anderson, 1998), sports businesses can increase their customer satisfaction and keep their existing customers and pave the way for new customers. In today's sports industry, where global differentiation is taking place, service quality stands out as an important factor in maintaining a sustainable structure (Yıldız, Polat, Sönmezoğlu and Çokpartal, 2016). In this context, in order to become a highly demanding enterprise, managers first should solve employees' problems (Yildiz, 2013; Yildiz, 2018) by providing effective leadership to their employees (Yildiz, 2011), then they need to make more efforts to improve human resources, the richness of programmes and the improvement of facilities. For this purpose, service quality and customer satisfaction developments should be measured

periodically. Thus, weaknesses can be improved, and good aspects can be improved further.

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