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## Determination of the service quality among sport and fitness centers of the selected universities\*

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### Abstract

Purpose of this study was to determine the service quality among sport and fitness centers of universities. Participants of the study were constituted of 484 (194 female and 290 male) persons who are students, academics and administrative staffs attending to sport and fitness centers of seven universities in Ankara. The mean age of the participants was  $22.45 \pm 5.14$ .

The SQAS-T (The Turkish Version of the Service Quality Assessment Scale) was used as instrument. In the statistical analysis, descriptive statistics was used to investigate distribution of mean of the participants' difference scores (service quality satisfaction scores).

Results indicated that service quality among the sport and fitness centers of the universities did not fulfill their users' expectations. However, according to mean of total difference scores it was seen this dissatisfaction level was not so huge.

**Keywords:** Sport; sport and fitness; service quality; university

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## Seçilmiş üniversitelerin spor ve fitness merkezlerindeki hizmet kalitesinin belirlenmesi

### Özet

Bu çalışmanın amacı üniversitelerin spor ve fitness merkezlerindeki hizmet kalitesinin belirlenmesidir. Çalışmanın katılımcıları Ankara'daki yedi üniversitenin spor ve fitness merkezlerine devam eden öğrenci, akademik ve idari personelden oluşan toplam 484 (194 bayan ve 290 erkek) kişidir. Katılımcıların yaş ortalaması  $22.45 \pm 5.14$  olarak tespit edilmiştir. Ölçüm aracı olarak

Hizmet Kalitesi Değerlendirme Ölçeğinin Türkçe Versiyonu (SQAS-T) kullanılmıştır. Katılımcıların fark değerlerinin (hizmet kalitesi memnuniyet değerlerinin) dağılımının incelenmesinde tanımlayıcı istatistik kullanılmıştır.

Çalışmadan elde edilen sonuçlar, üniversitelerin spor ve fitness merkezlerinde sunulan hizmet kalitesinin kullanıcıların beklentilerini tam olarak karşılamadığını ortaya koymaktadır. Fakat, toplam fark değerlerinin ortalamasına bakıldığında memnuniyetsizlik seviyesinin çok fazla olmadığı da görülmektedir.

**Anahtar Kelimeler:** Spor, spor ve fitness, hizmet kalitesi, üniversite.

## Introduction

As a result of globalization and competition, which are the clearest characteristic of second half of the twenty first century, industries had to increase variety and quality of service to meet their customers' needs and expectations (Canbolat, 2002). Organizations started to investigate the ways of presenting high quality of service not only in product or manufacturing sector but also in service sector. Çimen and Gürbüz (2007) expressed that rapid progress in service industry increased the competition among the companies inevitably, and improvement in service quality and efforts for holding customers in their market became more important than the past. Moreover, as a result of changes in the social life, customers' conscious about consumption, technological developments and increasing in the prosperity level of people also increased the importance of service sector day by day (Yetiş, 2001). According to researches determining the factors that affect the service quality and researches working on improvement in service quality will decrease the service cost. For that reason to reduce their production expenses organizations started to give importance to identify the needs and expectations of their customers. In this process the most important thing is to analyze present service quality provided by that organization and the level of customer satisfaction (Gürbüz, 2003; Yetiş, 2001).

It can be seen from the related literature that service quality and its related components which are service, quality and service quality were examined separately. More specifically, services are intangible, heterogeneous, and they are produced and consumed simultaneously. These attributes highlight the idea that the interactions between the client and service employee are critical to the production and consumption of a service heterogeneous (Chelladurai, and Chang, 2000). In service quality literature another concept is quality which is defined in The Oxford English dictionary as degree of excellence, relative nature. A more traditional definition of quality is comparison of consumer expectations with actual service performance (Parasuraman, et al., 1988). Zeithaml et al. (1985) defined it as the extent of discrepancy between customer's expectations or desire and their perceptions. In essence, quality can be understood as meeting the customer's expectation (Kehoe, 1996).

Service quality concept was defined in many studies by different researchers as degree to which the performance of service provider matches customer expectations, and as the customer's overall impression about the service performance, service delivery systems, and overall consumption experiences (Zikmund and D'Amico, 1996; Yong and Pastore,

2004). Similar to the other sectors, in sport sector, service quality and its importance started to receive great attention. According to Yong and Pastore (2004), the meaning of quality is relative to concept and can vary under different circumstances. Therefore, it is necessary to reanalyze the meaning of service quality in relation to the recreational sport industry. Bitner (1992) expressed that in the sport industry, a customer's experience is a major outcome. Sport consumers often have a certain level of expectation about the outcome of sport participation. In sum, the concept of service quality is defined based upon the characteristics of services and its delivery process as viewed by sport consumer. İmamoğlu (1998) stressed the reason behind the situation that why sports organizations exist is meeting of customers' needs and expectations by designing and providing service at the most appropriate conditions, at right place, right time and right price. For that reason, similar to the other service sectors, for the sport service provided by sport organizations it is very necessary to obtain marketing information which provides knowledge about their customers' needs and expectations. Any institution gets the success if it understands the uncovered or covered customer expectations, and directs its production to these expectations.

After identification of service quality and its related components, the competitive business world of both good and service sector was also interested in measurement of service quality for several years. Many researchers emphasized the importance and benefits of service quality measurements. For that reason, to be able to aware of service quality level and to learn the status of customer satisfaction, organizations used different models and measurement tools. Questionnaires answered by target customers were commonly used to reflect the customer satisfaction levels on critical service elements with regard to validity and reliability and a five and a seven point Likert-type scale were commonly applied in most research (Hung, et al., 2003). In addition, different models and tools were developed to measure service quality by both academics and people working in the area of service sector. One of these models is Grönroos model which emphasizes that service quality consists of three parts; first is institutional image, second is technical quality, the third is functional quality. Technical quality means what do customers buy or consume. The functional quality means how do customers buy or consume service. As well as these two factors the institutional image is very important. The appearance of the organization as facility, appearance of staff and similar physical features has effect on an organization's institutional image and consequently service quality (Chang et. al., 2002; Gürbüz, 2003). At first,

Gronroos (1984) used a two-dimensional model to study service quality. McDougall and Levesque (1994) later added to Gronroos's model a third dimension, physical environment, proposing their three-factor model of service quality. This later model consists of service outcome, service process (Gronroos, 1984), and physical environment. Another model is the Gap Model which was developed by Parasuraman et al. (1985). This model was commonly used by the organizations to measure both level and direction of provided service quality is the initial one in this area. It measures both customers' expectations and performance of service provider. In Gap Model service quality is determined by comparison of customers' expectations with their perceptions. Gap model can be explained as shortly that there are some expectations of the customer from the organization, after service presented, service quality determined by comparing these expectations with their perceptions from service (Chang et al., 2002). Parasuraman et al. (1988) also developed an instrument which was SERVQUAL. The original SERVQUAL instrument comprises 22 statements used to assess service quality across five dimensions (tangibles, reliability, responsiveness, assurance, empathy) with each statement used twice: once to measure expectations and once to measure perception. According to Wisniewski (2001) SERVQUAL can be adapted with minor modification to any service organization.

When the related literature with service quality measurement in sport setting was investigated, it was seen that researchers have either directly applied the SERVQUAL instrument or have modified it to tailor it more specifically to the service of the fitness and recreational sport industry. For example, to measure the perceived and expected service quality in sport and fitness centers QUESC was developed by Kim and Kim (1995). Theodorakis and Kambitsis developed SPORTSERV with five dimensions and 22 items in 1998 to measure how spectators perceive the sport service quality in professional sport. In addition to these, in 2000 Lam developed SQAS (Service Quality Assessment Scale) with 6 dimensions and 40 items to measure customers' expectations from sport and health centers. When the sport science literature was reviewed, it was realized that there is limited study regarding measurement of provided service quality and customer satisfaction, and this situation is shown similar for Turkey. So, the purpose of this study was to determine the service quality in the sport and fitness centers. On this purpose this study was designed to determine the service quality satisfaction level (perceived service quality minus expected

service quality) of the students, academics and administrative staffs attending to sport and fitness centers in the public and the private universities in Turkey.

### **Material and method**

Survey research method was used in the overall design of this study. The participants of this study were constituted of total 484 students, academics and administrative staffs who are attending to sport and fitness centers of seven (four public and three private) universities in Ankara.

In this study “Turkish Version of The Service Quality Assessments Scale” (SQAS-T) was used. The reliability and validity analysis of this instrument was realized by Gürbüz (2003). The Turkish version of the Service Quality Assessment Scale (SQAS-T) consists of five-factor model with 34 items. These are staff (9 items), program (7 items), locker room (5 items), physical facility (13 items), and Child Care (6 items). The last factor-child care with 6 items was not included in this study. Since this instrument was used in sport and fitness centers of university campuses not in private sport and fitness centers, and also it was distributed not only to adults but also to students of these universities. Removing of the last factor of SQAS-T did not affect the reliability and validity of the instrument (Gürbüz, 2003).

The SQAS-T used in this study consists of three main parts: in the first part, there are four questions to obtain information about participants’ demographic profile; in the second part, there is a service quality assessment scale consisting of 34 items and four subscales (staff with 9 items, program with 7 items, locker-room with 5 items, and facility with 13 items); in the third and last part, there are two open-ended questions to evaluate the sport and fitness centers by the participants’ own sentences. Participants were asked to rate each item on a 7-point Likert scale ranging from 1 (the least important) to 7 (the most important) in the expected service part; and from 1 (poor) to 7 (excellent) in the perceived service part in the instrument.

After investigation of ten universities (4 public and 6 private) in Ankara, seven (four public and three private) of them having sport and fitness centers in their campus were determined as the population of this study. Before distribution of the instrument the required permission was taken from the related departments of these universities. After taking the permission, the participants willing to take place in this study were asked to respond to questionnaire. They were instructed about the purpose of the study, factors and items in

SQAS-T before responding to the questionnaire. Total 700 questionnaires (100 for each university) were distributed to the sport and fitness centers of the seven (four public and three private) universities in Ankara. Out of 700 questionnaires, 520 questionnaires returned. However, after examination of the obtained questionnaires, 36 questionnaires were omitted because of missing or lack of data. So, total 484 questionnaires with 69 % returning rate were used for data analysis in this study.

Descriptive statistics was used to investigate the frequency and percentage distribution of the participants' age, and the mean and standard deviation of the participants' age, and it was also used to investigate the distribution of mean scores of the participants' difference scores (service quality satisfaction scores) at total and at staff, program, locker-room, and facility subscales. All of these statistical procedures were realized by using SPSS (Statistical Package for Social Sciences) program for windows operating system.

## **Findings**

In this part, firstly, the frequency and percentage distribution of the participants according to their age and gender, then mean and standard deviation of expected, perceived and service quality satisfaction scores were presented.

### **1. The frequency and percentage distribution of the participants' age**

In Table 1, the frequency and percentage distribution of the participants, in Table 2, the mean and standard deviation of the participants, according to the age were displayed. In addition, in Figure 1, distribution of the participants' age was displayed.

**Table 1.** Frequency and Percentage Distribution of the Participants' Age

<i>Age</i>	<i>N</i>	<i>%</i>	<i>Cumulative</i>
17.00	20	4.1	4.1
18.00	38	7.9	12.0
19.00	58	12.0	24.0
20.00	67	13.8	37.8
21.00	81	16.7	54.5
22.00	46	9.5	64.0
23.00	49	10.1	74.2
24.00	30	6.2	80.4
25.00	22	4.5	84.9
26.00	13	2.7	87.6
27.00	13	2.7	90.3
28.00	11	2.3	92.6
29.00	2	.4	93.0
30.00	10	2.1	95.0
31.00	4	.8	95.9
32.00	3	.6	96.5
33.00	2	.4	96.9
34.00	2	.4	97.3
35.00	2	.4	97.7
36.00	1	.2	97.9
38.00	1	.2	98.1
40.00	1	.2	98.3
41.00	1	.2	98.6
44.00	1	.2	98.8
46.00	2	.4	99.2
52.00	2	.4	99.6
58.00	1	.2	99.8
61.00	1	.2	100.0

As it is seen from the Table 1, distribution of the participants' age can be gathered in three main groups. In the first and the most crowded age group, there are 411 persons between the 17 and 25 with the percentage of 85. Within this group the age of 21 had the most frequency with the 16.7 %; the second one was the age of 20 with the 13.8 %; and third one was the age of 19 with the 12.0 %. In the second age groups between 26 and 30 there are



41 persons with the percentage of 10. In the third and the least crowded group there are 26 persons with the percentage of 5.

**Table 2.** Mean and Standard Deviation of the Participants' Age

<i>Mean</i>	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Sd</i>
22.45	484	17.00	61.00	5.14

As it is shown from the Table 2 that mean of the participants' age was  $22.45 \pm 5.14$ ; and minimum age was 17 and maximum age was 61. In the Figure 1, the distribution of the participants' age was displayed.

## 2. Gender profile of the participants

In Table 3, the distribution of the participants according to the gender was displayed.

**Table 3.** Distribution of the Participants According to the Gender

<i>Variable</i>	<i>Category</i>	<i>n</i>	<i>%</i>	<i>Cumulative</i>
<b>Gender</b>	Female	194	40.1	40.1
	Male	290	59.9	100

As it is seen from the Table 3, participants of this study consisted of 194 (40.1 %) female and 290 (59.9 %) male. Results show that males show interest to sport and fitness centers in the universities more than females.

### 3. Mean and standard deviation of expected, perceived and service quality satisfaction scores

At the end of this study it was expected that the participants who are attending to sport and fitness centers of universities would be highly satisfied from the provided service quality. To test this hypothesis expected and perceived scores of the participants were stored in computer by using the SPSS program. After this process, the mean of the expected and the perceived scores were computed separately (Table 4, Table 5). And then, the total difference scores were obtained by subtracting perceived mean scores from expected mean scores of the participants. Finally, the means of difference scores (service quality satisfaction scores) at total and at staff, program, locker-room, and facility subscales were obtained (Table 6).

In the Table 4, “Expmean” means expected service quality, “Estamean” means expected staff, “Eprgmean” means expected program, “Elckmean” means expected locker room and “Efacmean” means expected facility.

In the Table 5, “Percmean” means perceived service quality, “Estamean” means expected staff, “Eprgmean” means expected program, “Elckmean” means expected locker room and “Efacmean” means expected facility.

In the Table 6, “Totdifsc” means total difference score, “Stadifsc” means staff difference scores, “Prgdifsc” means program difference scores, “Lckdifsc” means locker room difference scores,, “Facdifsc” means facility difference scores.

**Table 4.** Mean and standard deviation of expected service quality scores

Variables	N	Mean	Sd
Expmean	484	6.04	.71
Estamean	484	6.16	.78
Eprgmean	484	5.99	.93
Elckmean	484	6.35	.85
Efacmean	484	5.87	.88

As it is seen from the Table 4, which represents the mean and standard deviation of the expected service quality scores and four subscales, that facility subscale had the lowest score ( $M=5.87 \pm 0.88$ ) among the other subscales. On the other hand, the locker-room

subscale had the highest score ( $M=6.35 \pm 0.85$ ). Also the descriptive results shown in table emphasized that the expectation from the staff ( $M=6.16 \pm 0.78$ ) and the program ( $M=5.99 \pm 0.93$ ) were the second and the third important factors for the participants. When the expected mean score of the participants is examined it was seen that participants had high expectation ( $M=6.04 \pm 0.71$ ) from their sport and fitness centers.

**Table 5.** Mean and standard deviation of perceived service quality scores

Variables	N	Mean	Sd
Percmean	484	5.26	1.03
Pstamean	484	5.44	1.28
Pprgmean	484	5.06	1.24
Plckmean	484	5.33	1.29
Pfacmean	484	5.21	1.14

As shown in the Table 5, which represents the mean and standard deviation of the perceived service quality score and four subscales, the staff subscale which evaluated the participants' service quality from the staff gathered the highest mean score ( $M=5.44 \pm 1.28$ ) among the other subscales of perceived service quality. On the other hand, the program subscale reflected the lowest perceived service quality score ( $M=5.06 \pm 1.24$ ). As it is shown from Table 5 the locker-room ( $M=5.33 \pm 1.29$ ), and the facility ( $M=5.21 \pm 1.14$ ) were the second and the third important factors according to the participants' perceived service quality scores. When the mean score of the participants' perceived service quality was examined from the Table 4, it is seen that mean of the perceived service quality score was at the average level ( $M=5.26 \pm 1.03$ ).

**Table 6.** Mean and standard deviation of total difference scores  
(Service quality satisfaction scores)

Variables	N	Mean	Sd
Totdifsc	484	-.77	.98
Stadifsc	484	-.70	1.23
Prgdifsc	484	-.91	1.32
Lckdifsc	484	-1.01	1.38
Facdifsc	484	-.66	1.16

In Table 6, mean and standard deviation of the total difference scores (service quality satisfaction score) obtained by subtracting expected mean scores from perceived mean scores of the participants at total and staff, program, locker-room, and facility subscales were displayed. As it is shown from the Table 6, all of the scores were in negative direction. The locker-room subscale (locker-room difference score) had the lowest ( $M=-1.01 \pm 1.38$ ) mean score. On the other hand, facility subscale (facility difference score) had the highest ( $M=-.66 \pm 1.16$ ) mean score. According to descriptive statistics results, staff subscale (staff difference score) and program subscale (program difference score) were ranked as the third ( $M=-.70 \pm 1.23$ ) and the fourth subscales ( $M=-.91 \pm 1.32$ ) among four subscales in terms of participants' difference scores in service quality. As it is displayed in the Table 6 that the mean score of total difference score (perception-expectation) was  $M=-.77 \pm 0.98$ . These findings mainly show that participants' perceived service quality scores were lower than their expectation scores, or expectation was higher than perception in terms of service quality.

#### 4. Results obtained from the open-ended questions

The last part of the SQAS-T including two open-ended questions was not included in this study. Since this section was empty in the majority of the participants' paper. Moreover, although a few participants filled this section, their responses were both unclear and irrelevant to include in the results part and evaluate in the discussion part of this study.

## Discussion and conclusion

### Expected, perceived and difference scores of the service quality

According to results of the distribution of means scores of expected service quality from the sport and fitness centers locker-room subscale had the highest expectation score ( $M=6.35 \pm 0.85$ ) among the other three subscales. This result shows that user of the sport and fitness centers in the universities give more importance to locker-room of the center that they use. Participants consider the characteristics of locker-rooms such as availability, overall maintenance, cleanliness, accessibility and safety more important than the other characteristics of sport and fitness center. It can be resulted from the fact that in the last years increasing in the number of sport and fitness centers gave opportunity to their customers to evaluate and compare the provided service with other ones. And this also created more conscious customer profile. Nowadays people give more importance to cleanliness, hygienic, and safety places than the past. This result was also supported by the study conducted by Kim and Kim (1995). According to the findings from this study cleanliness, security of personal goods, convenience access to the facility, preparedness of emergency and provision of safety education were found to be most desirable by the customers.

Unlike the locker-room, participants found the facility subscale as the least important among the other subscales. This shows participant do not have high expectation from their sport and fitness centers' facility and physical surrounding. According to expectation scores, the other important subscales were staff and program among the four subscales for the participants. These findings mainly show that participants have high expectation from the instructors working in these centers, and program or schedules provided for them. As it was stated for the locker-room subscale, conscious in consumption behavior of customer affected their expectation and satisfaction level. People prefer to work with trained or specialist staffs or instructors according to predetermined and suitable programs to their needs. Moreover, when the mean for expectation score at total was investigated it is shown that participants' expectation from the service quality is very high ( $M=6.04 \pm .71$ ). This is the indicator of the fact that almost all items were considered as the most important for the participants, and they wanted to receive the service from their sport and fitness centers in the high standards as far as possible.

When the mean of the perceived service quality scores of the participants is examined it was mainly seen that participants had average ( $M=5.26 \pm 1.03$ ) perception scores from the

service quality. Moreover, the other subscales were also in average level in terms of participants' perceived service quality scores. The staff subscale had the highest mean score among the other subscales. Results indicated that the characteristics which are knowledge/skills, neatness and dress, willingness to help, patience, communication, responsiveness, courtesy, provision of individualized attention and consistency of service related to staff mostly satisfied participants' expectations. On the other hand, the program subscale had the lowest mean scores that means participants were not satisfied with the provided service quality in terms of program they received in these centers. This shows that while ability or capacity of the instructors working in the sport and fitness centers are perceived as satisfactory, their programs or schedules are not seen as satisfactory. So, sport and fitness centers should present programs with more quality and in variety, and contact with their customers to determine their needs, wants, and also their level of capacity to do exercise. Then, according to obtained information, they should redesign their programs, and also follow the developments both in the literature and in the technology related with physical education, sports, and fitness. On the other hand, participants had perceived service quality related with the characteristics of the locker-room (availability, overall maintenance, cleanliness, accessibility and safety) and facility (location, operation hours, parking, accessibility, parking lot safety, temperature and lighting control, pleasantness of environment, modern-looking equipment, signs and directions) as average. That means features of locker-rooms and facilities were perceived as not poor but also not excellent by the users.

As it is shown from the results, participants' difference scores (service quality satisfactions scores) related to service quality were in negative direction. According to results, their expectations were higher than their perceptions among the sport and fitness centers of the universities. This mainly means participants did not find the service quality as they expected. Although this result does not fully support the main hypothesis in this study, and even the service quality satisfaction scores of the participants were negative, it can not be said that service quality provided in these centers is very low or bad. As it was stressed in the previous parts of this study quality is a relative concept and can vary from one to another. Everyone has different quality judgment (Chelladurai and Chang, 2000). The reason of the negative direction in the total difference score (perceived minus expected) can be resulted from naturally having high expectations of the users. Depending on such factors which are

education level, life style or attitudes of the participants toward sport can increase the expectations of people. According to the result of this study, the service quality as perceived by the users did not fulfill their expectations. It can be said that the most important thing to be taken into consideration should be level or ratio of the satisfaction rather than its negative direction depending on the difference scores of the participants in this study. In addition it can be seen from the results of subscales that dissatisfaction from the provided service quality was not so huge. As it was stated before quality is very relative concept. Everyone has different quality understanding. Evaluation of somebody about quality in the sport and fitness centers may not be same with another one. Somebody may perceive the facility and its locker-rooms as good, but somebody may not, or perception of somebody from the provided programs and staffs may be different from the others' perception. Especially, the frequency in usage of these centers and their opinion about these types of centers may important factors in this point. People having knowledge about which features should be in these centers, and having opportunity to compare these centers with the others may have higher expectation, and their perception or satisfaction level may not be same with other people. So, sport experience of people can affect their desires and perceptions.

According to findings from this study even the perception of people from the service quality is lower than their expectation; it is difficult to say that service quality provided in the sport and fitness centers is so bad or too low. Depending upon the result, it can be said these centers do not fully meet or satisfy their customers' expectations. As it was stated in the related literature part, perception of service quality is quite a controversial topic and can change from one to another. So far no consensus has been reached on how to conceptualize or operationalize this construct. Everyone has different understanding about meaning of quality, or has different judgment about the quality and service quality concept. According to results from these types of measurements, it can only be mentioned about satisfaction or dissatisfaction rather than poor or bad quality. So, organizations should consider the result in terms of not only its direction but also its level or degree indicating the satisfaction or dissatisfaction level of customers. Since every time expectation of people may be higher than their perception, and their satisfaction level may be in the negative direction. However, for the organizations the most important point should be to do their best to be able to provide their customers with quality of service as far as possible. Moreover, sport organizations in this service sector should repeat these kinds of measurements in regular intervals to obtain

their customers satisfaction level, complaints and thoughts. They should spend their time and allocate their budget for questionnaire and interviews. As it was stated by researchers consumers should not be seen as those people who just pay money for a product or service (Costa and Clinia, 2003). The word “to gain new customer more expensive than to gain existing one” should be main principle for sport and fitness centers managers, too. Moreover, customers should know “where they can complain” and should see “what is the result of this complaint”, through which they can understand that they are considered important.

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