Quality assessment of private fitness centers in eastern Thessaloniki

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ABSTRACT

Introduction. The paper aims to assess service quality in private gyms of eastern Thessaloniki.
Aim of Study. The study focused on demographic differences, participation frequency and intention to continue participation in fitness centers of eastern Thessaloniki.
Material and Methods. The sample consisted of 250 (N = 250) (mean age 24 years) customers of four private fitness centers in the eastern part of Thessaloniki. The theoretical model used was the SERVQUAL model as modified by Alexandris et al. (2004).
Results. No statistically significant differences were found between ANOVA results of five aspects of service quality and participants' occupation as well as education level. There were statistically significant differences between all service quality aspects and participation frequency. The regression analysis revealed a statistically significant contribution of the aspect of intention to participate in fitness services in the future to two factors: reliability and expected outcome (beta 267, t = 2.892).

KEY WORDS   service quality, SERVQUAL, sports fitness centers.

Introduction

The need of the present-day Greek society to experience the benefits of gymnastics has led to a recent increase in the number of gyms in the country. The consequence of this increase has been growing competition among the gyms to acquire the larger share of the market. The achievement of this goal led the Greek gyms to expand their offer beyond traditional gymnastics, improve their facilities and equipment and increase the range of services (sauna, massage, esthetics, alimentation, etc.). The quality of services is defined by the results of a comparison a customer makes between his or her expectations and perceptions of provided services [1-3].

The quality assessment of customer services defines the success of a gym, because a dissatisfied customer will normally complain to at least seven other people [4]. However, this assessment is difficult because it is subjective, loyalty to the product may not be observed, and the services are prepared and consumed simultaneously [5].

Many surveys have indicated the importance of service quality assessment [6], and others have shown the relationship between the provided services and customers' devotion to them [7]. Few studies, however, have examined the correlation between the quality of services and demographic characteristics.

The aims of this study were the quality assessment of gym services in eastern Thessaloniki and an analysis of the relationship between demographic features and gym attendance.

Service quality assessment models

Multiple models of service quality assessment have been developed, e.g.:
– technical and functional qualitative model,
– vacuum gap model,
– characteristics of qualitative services,
– complex quality services model,
– efficiency model,
– quality of services ideal model,
– assessed efficiency and leveled quality model,
– living up to technology information model,
– characteristics of the general model of influences,
– model of taken-in service quality and satisfaction,
– PCP attributes model,
– retail services quality and taken-in model of values,
– services quality value and customers' satisfaction,
– mediators' model,
– internal model of services quality model,
– internal model of services,
– Internet model,
– SERVQUAL model.

SERVQUAL model

The assessment of quality of services plays an important role in marketing strategies [8]. The theoretical SERVQUAL model [9] has been used in many studies on the estimation of services quality [10]. The model consists of five aspects: a) tangibles – gym facilities and equipment; b) credibility – the ability to provide the promised services; c) security

– the personnel's knowledge and qualifications; d) responsibility – personnel's willingness to help the customers; and e) sentiment – concern and individualized attention towards the customers.

The SERVQUAL model [11] has been used extensively for decades for service quality assessment of hotels, museums, airlines, health institutions, recreation centers, business enterprises, etc. However, the importance of service quality assessment in sports facilities has been only recognized in recent years and examined by few researchers.

Han assessed the satisfaction of service quality in selected athletic centers. His results showed five factors affecting the quality assessment: offered programs, employers' function, public relations, costs and installations [12].

Ko tried to understand the structure of services quality on a model focusing on sports customers, recognizing the relationship between service quality, customer satisfaction and intention to participate again, and tested the levels of sport participation according to the perceptive model. Ko's study used four aspects of the service quality model, each with subcategories: program quality, duration, interaction ability, quality of results, quality of the environment. The results showed that the quality of services and satisfaction is equally important to the consumer and that it determines his/her intention to participate in the services again in the future [13].

Papadimitriou and Karteliotis tried to re-examine the quality structure in the sports centers assessed by Kim & Kim. The survey took place in Patra. The results failed to support the credibility of an eleven-dimension model about the expected services quality. On the contrary, the study led to the creation of a model with four dimensions: a) trainer's quality, b) installations and function, c) program availability, and d) other services [14].

Afthinos et al. tried to evaluate service quality in athletic centers in Athens. Their results showed that cleanliness was the most important factor, followed by personnel's knowledge and skills, personnel's responsibility, politeness and responsiveness [15].

Eventually, Alexandris et al. examined the adaptability of a simplified model of service quality in health centers. The results pointed to three factors: quality interaction, environment, and quality of the expected outcome. They noted the last dimension to be highly significant and suggested its inclusion in the assessment procedures of sport centers [16].

Aim of Study

The aim of the present survey was to assess the quality of services in private gyms with regard to: a) demographic differences, b) frequency of customers' participation, and c) the intention to participate in the services in the future.

Material and Methods

Sample

The sample consisted of 250 adult men and women (63.2% women, 36.4% men) at the average age of 24 years, who attended private gyms in eastern Thessaloniki.

Questionnaire

The theoretical model applied in the study was the SERVQUAL model as modified by Alexandris et al. [17]. The questionnaire consisted of five basic aspects: 1) tangibles – 5 items, 2) personnel – 6 items, 3) responsibility – 4 items, 4) reliability – 4 items, 5) outcome – 6 items. The answers were given on a 7-point Likert-type scale (from 1 – It didn't satisfy my expectations to 7 = It surpassed my expectations).

Data assessment procedure

The survey took place in four private gyms in eastern Thessaloniki. The questionnaires were distributed in the presence of a researcher who provided explanations and information if necessary. All questionnaires were anonymous in order to obtain possibly the most spontaneous and valid answers.

Statistical analysis

The SPSS 16 software package was used in statistical analysis. The descriptive statistics were applied, followed by the reliability and validity analysis of the questionnaire as well as palindrome analysis for the assessment of intention to participate in the services in the future.

Results

Sample demographic characteristics

The analysis of demographic characteristics gave the following results. 63.2% of the gym customers in Thessaloniki were women and 36.4% men, at the average age of 24 years. 59.6% of the customers were single, 27.2% married, 7.2% divorced and 1.2% widowed. As far as the customers' level of education was concerned, 42% had a secondary education, 31.6% were university graduates, 12.8% had a vocational education, 6% had postgraduate diplomas and 1.6% had an elementary education. In terms of their occupation, 33.2% were private sector employees, 24.8% students, 16.8% public sector employees, 10% entrepreneurs, 5.2% unemployed, 14.8% represented other occupations and 3.6% were housewives (Table I).

Participation frequency

In terms of the customers' frequency of gym attendance the highest percentage of the sample, i.e. 38%, stated that they came to the gym frequently, 28.8% – quite often, 16.4% – systematically, 13.6% – sometimes, and 1.6% – only occasionally. The average duration of gym participation was 17.9 months for the total of the customers (18.6 months for men, and 17 months for women). 28.8% of the sample stated they were club members, while 55.6% were non-members, and 15.6% did not specify their membership status (Table II).

Analysis of variance and *post hoc* analysis

No statistically significant differences were found in the analysis of variance between the five aspects of the services and participants' education as well as between the five aspects and participants' professional qualifications. However, the analysis between the five service quality aspects and frequency of participation revealed statistically significant differences for all five aspects: Tangibles, (F = 9.870, p < 0.05),

Table I. Demographic characteristics of the study sample

Sex	Average age	Family status	Education	Occupation
Women 63.2%	Women 28 years old	Single 59.6%	Primary 1.6%	Students 24.8%
Men 36.4%	Men 29.4 years old	Married 27.2%	Secondary 42%	Private sector employees 33.2%
		Divorced 7.2%	College 12.8%	Public sector employees 16.8%
		Widowed 1.2%	University 31.6%	Businessmen 10.0%
			Post Graduate Studies 6.0%	Unemployed 5.2%
				Housewives 3.6%
				Others 4.8%

Table II. Participation frequency and club membership

Exercise frequency	Average participation length (months)	Club members
Occasionally 1.6%	Total: 17.9 months	Yes 28.8%
Sometimes 13.6%	Men: 18.6 months	No 55.6%
Frequently 38.0%	Women: 17 months	
Quite often 28.8%		
Systematically 16.4%		

Outcome (F = 9.225, p < 0.05), Credibility (F = 8.059, p < 0.05), Responsibility (F = 4.406, p < 0.05), Personnel (F = 4.362, p < 0.05).

The analysis of the credibility of quality aspects as well as internal consistency analysis (Cronbach's alpha) yielded the following coefficient values: Tangibles = 0.926, Personnel = 0.726, Responsibility = 0.530, Credibility = 0.923, Expected Outcome = 0.961, and Intention to Participate = 0.882. Cortina claims that in scales with a reduced number of topics (e.g. six and fewer) the coefficient of reliability must have be higher than 60 to be credible. Consequently, the aspect of "Responsibility" requires more research on all items as regards internal consistency [18] (Table III).

In the Tangibles aspect, the highest mean value was given by those who took part <Systematically> and the

lowest by those who took part <Only occasionally>. Post hoc analysis revealed correlations in the Tangibles aspect between the participants attending the gym <Only occasionally> and those attending the gym <Quite often>, <Only occasionally> and <Systematically>, <Sometimes> and <Often>, <Sometimes> and <Systematically>, and finally between those who stated they were attending the gym <Only occasionally> and <Quite often>.

In the aspect of <Expected Outcome> the highest means were given by those who attended the gym <Systematically> and the lowest by those who participated <Only occasionally>. The post hoc analysis revealed a correlation between those who stated they were using the gym services <Only occasionally> and those practicing <Systematically>, <Sometimes> and <Quite often>, <Sometimes> and

Table III. Results of credibility analysis

ASPECTS	Sometimes	Only occasionally	Often	Quite often	Systematically	F	p	Comparison
Tangibles	3.50 (0.83)	3.91 (1.16)	4.43 (1.11)	5.08 (1.00)	5.40 (1.30)	9.870	0.001	(1-4) (1-5) (2-3) (2-4) (2-5) (3-4) (3-5)
Expected outcome	4.00 (1.45)	4.15 (1.25)	4.59 (1.14)	5.25 (1.09)	5.66 (1.31)	9.225	0.001	(1-5) (2-4) (2-5) (3-4) (3-5)
Credibility	4.50 (1.08)	4.19 (1.33)	4.88 (1.20)	5.39 (1.10)	5.77 (1.22)	8.059	0.001	(2-4) (2-5) (2-3) (3-4) (3-5)
Responsibly	4.41 (1.46)	4.21 (1.86)	4.51 (1.20)	5.35 (2.46)	5.65 (1.40)	4.406	0.001	(2-4) (2-5) (3-4) (3-5)
Personnel	4.50 (1.58)	4.67 (2.01)	4.79 (1.29)	5.34 (1.10)	5.79 (1.25)	4.362	0.001	(2-4) (2-5) (3-4) (3-5)

<Systematically>, and <Often> and <Quite often>. Finally, a correlation was found between those practicing <Often> and those practicing <Systematically>.

In the aspect of <Credibility> the highest mean values were given by those who attended the gym <Systematically>, and the lowest average by those who participated in gym exercises <Sometimes>. The post hoc analysis revealed a relationship among those practicing <Sometimes> and those w practicing <Quite often>, <Sometimes> and <Systematically>, <Sometimes> and <Often>, <Often> and <Quite often>, and finally, between <Often> and <Systematically>.

In the aspect of <Responsibility> the highest average scores were given by those who attended the gym <Systematically> and the lowest by those who participated in gym exercises <Sometimes>. The post hoc analysis revealed a relationship between those who exercised in the gym <Quite often>, those who stated they were practicing <Sometimes> and <Systematically>, and those practicing in the gym <Often> and <Systematically>. In the aspect of <Personnel> the highest average was noted by those who participated <Systematically> and the lowest by those who participated <Only occasionally>. The post hoc analysis revealed a relationship between those who stated they were exercising <Sometimes> and <Quite often>, between those who stated they were exercising <Sometimes> and <Systematically>, between those who attended the gym <Often> and <Quite often>, and finally between those who stated they were exercising <Often> and <Systematically>.

Intention to continue to participate

The variance analysis was aimed to examine how the five aspects of the provided services quality contributed to the respondents' intention to participate in gym exercises in the future. The results showed a statistically significant contribution to the aspects of <Credibility> and < Expected outcome> (Table IV).

Table IV. Intention to continue participation

Aspects	B	Beta	t	p
Tangible	9.04	0.075	0.862	0.389
Personnel	0.167	0.159	2.029	0.044
Responsibility	1.138	0.014	0.221	0.825
Credibility	0.308	0.267	2.892	0.004
Expected outcome	0.263	0.225	2.832	0.005

Discussion

The aim of this survey was to provide an assessment of quality of services in private gyms with regard to demographic characteristics, frequency of participation and intention of gym customers to continue their attendance in the gyms in the future.

The services quality was assessed with the use of a SERVQUAL questionnaire as modified by Alexandris et al. [19]. The questionnaire has been applied in research in Greece, and its validity and credibility have been confirmed. First studies on the assessment of services quality in Greece

appeared in the mid-1990s and mainly focused on private gyms and recreational facilities. Botteril and Crompton noted that customers are really satisfied when the performance surpasses their expectations. The enterprises must therefore stably aspire to surpass their customers' expectations [20]. The results of Dishma Biddle, Nigg, and Dawson et al. showed that the expected outcome is an important factor for the participation in gym exercises [21].

The results of a study by Afthion et al., evaluating the quality of services in athletic centers in Athens showed that cleanness was the most important factors affecting quality services in a sports club, followed by personnel's knowledge and qualifications, personnel's responsibility, politeness and quickness of services provision [22].

According to the results of the present survey, the occupation and education were not correlated with the services quality assessment in private gyms. Individuals with different levels of education equally appreciated the good quality of services. However, it seems that exercise frequency is directly related to the quality assessment of the provided services. To some people, exercise is an experience and part of their daily life; therefore, the quality of provided services is a catalytic factor. The best quality always means more conscientious customers. The gym customers' intention to continue exercising in the gym depends on the credibility of description of each program, accuracy of the schedule and personnel's punctuality, and the expected outcome of exercise. In other words, it is related to the extent of accomplishment of goals such as improvement of customers' fitness, health, general mood, psychological and physical situation and energy potential.

Conclusions

The present study revealed a significant correlation between reliability and expected outcome of gym services and the intention to participate in gym exercises in the future. No relationship between the occupation and education level of gym customers with the provision of service quality by the gyms has been proven. However, the frequency of participation was found to be correlated with the quality of services. The gym customers desire the product they are going to buy (service quality) to respond to the surrounding reality. They also want to follow their daily exercise program in order to achieve their goals.

Proposals for practical development
– improvement of gym facilities,
– updating technical equipment,
– continuous staff training,
– introduction of new means,
– training methods,
– emphasis on personnel's punctuality and daily programs.

Proposals for future research

– larger samples for examination of demographic characteristics, features, exercise frequency and intention to continue participation,
– comparative analysis between eastern and western Thessaloniki,
– comparison of results of studies on public gyms in the province of Thessaloniki.

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