

## QUALITY OF SERVICES IN FITNESS CENTRES: IMPORTANCE OF PHYSICAL SUPPORT AND ASSISTING STAFF

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### ABSTRACT

*The aim of the study was to determine the differences between expected and perceived service quality, as well as the relationship between dimensions of service quality, customer satisfaction and purchase intentions of users in fitness centres. For this purpose, 323 users of fitness centres in private ownership in Serbia were surveyed. Results of the analysis of the SERVQUAL questionnaire showed that the biggest gap between expected and received quality service exists in the context of the factor of 'Cleanliness', while the smallest gap exists within the factor of 'Equipment' and conditions for exercise and factor of 'Staff'. Furthermore, the structural analysis indicates that customer satisfaction is largely determined by the 'Cleanliness' and characteristics of the 'Staff', and that the satisfaction has a high predictive impact on future purchase intentions ( $\beta=0.63$ ). In conclusion, it can be determined that the managers of fitness centres in Serbia must give priority importance to recruiting and training of the employees, with effective attention paid to the cleanliness of facilities.*

**Keywords:** Fitness centres; Consumers; Perception; Satisfaction; Purchase intentions.

### INTRODUCTION

Fitness centres are experiencing increasing expansion, because current customers are more and more concerned about quality of life (Gillison *et al.*, 2009) followed by a raised awareness that lack of physical activity is a significant factor for the increase of numerous chronic diseases, such as obesity, cardiovascular diseases, hypertension, diabetes and osteoporosis (Serbes *et al.*, 2017). The customer's choice is sophisticated, better informed and more demanding regarding the way they seek and buy the services (Lloyd & Reynolds, 2003). Enormous changes in the quality and range of services have contributed to the standardisation of fitness services (Frew & McGillivray, 2005) and development of fitness management (Lloyd, 2008). According to the European Health and Fitness Market Report (Europe Active & Deloitte, 2016), the health

and fitness sector serves over 46 million customers, generates income of EUR26.7 billion, employs 400,000 people, and consists of approximately 51,300 fitness centres.

The trend of expansion of fitness is also noticeable in Serbia, where the fitness sector includes approximately 1,000 fitness centres, out of which more than 100 belong to the National Association for Fitness and Recreation. This fact requires scientific research focus to shift towards the quality management in this sector. The intention here was for this research to contribute to the existing quality of research, with information about two very significant elements of the marketing mix of fitness centres, namely people and place. In a modern and highly competitive industry, such as the fitness market, a constant focus and concern for improvement of the quality of services and customer satisfaction is required (Alexandris *et al.*, 2004; Bodet, 2006).

Researching user experience provides important information on how to manage the unique challenges of service provision (Robinson, 2007; Wei *et al.*, 2010; Bowen & Schneider, 2014) and would play a key role in the realisation of marketing objectives and positive impact on economic profit of the organisation (Rust *et al.*, 2004; Gruca & Rego, 2005; Yoshida & James, 2010). However, investing in the quality of service is not directly followed by the profit due to their complex connection affected by other factors, such as the time required for gaining an accumulated experience of quality of service, as a dependent variable influenced by the quality of service and prices, which are important mediating factors between the service quality and customer satisfaction and their future purchase intentions (Cronin *et al.*, 2000; Murray & Howat, 2002; Gupta & Zeithaml, 2006) and securing the consumer loyalty (Larson & Steinman, 2009). At the same time, other variables such as price, product quality, competition and advertising also play an important role (Zeithaml *et al.*, 2006).

Overall, studies examining the services consider three different contexts: quality of service, customer satisfaction and customer purchase intentions. Quality of service involves the gap between expectations and their perceived experience (Grönroos, 1984; Parasuraman *et al.*, 1988; Zeithaml & Parasuraman, 2004) and it determines the measure of consumer satisfaction (Murray & Howat, 2002). The review of literature on the quality of services in the fitness context, shows that both physical and relational dimensions of quality are emphasised in particular (Alexandris *et al.*, 2004; Bodet, 2006; Kim & Trail, 2010; Li & Petrick, 2010; Maksimović & Raič, 2012; Theodorakis *et al.*, 2014). Visible aspects of the service provider are expressed as leading elements of these qualities (given the relatively long period of time that customers spend there) and competence and behaviour of the staff (qualifications, skills and abilities, individual predispositions of staff, 'first contact' with customers), who are responsible for the realisation of the psychological and physiological well-being of clients (Alexandris *et al.*, 2004; Theodorakis *et al.*, 2014).

Satisfaction can be analysed specifically within individual experiences of the service or at comprehensive level. The individual experience actually represents one encounter when providing the service (Pedragosa & Correia, 2009), while the comprehensive satisfaction means the accumulated experience that includes cognitive and emotional influence over the consumer after receiving the service (Li & Petrick, 2010). According to Zeithaml *et al.* (1996),

purchase intentions are indicators of whether the consumers will stay with or leave the service provider. The imposed aim for service providers is creating positive consumer habits and greater loyalty of clients who repeat their shopping and spend money over time (Söderland, 2006), given that keeping the existing customers represents the smaller cost than winning over the new clients (Zeithaml *et al.*, 1996; McIlroy & Barnett, 2000).

## PURPOSE OF RESEARCH

This research deals with identifying the difference between expected and perceived service, as well as the role and importance of physical support and service (contact) staff in satisfaction and purchase intentions of users in fitness centres in Serbia. The goal includes an examination of the extent to which the dimensions of the quality of services are predictive of satisfaction and future purchase intentions of users.

## METHODOLOGY

### Ethical approval

The study was granted approval from the Ethics Committee of Faculty of Sport and Physical Education, University of Novi Sad, Serbia. All participants were treated in accordance with the ethical guidelines of the American Psychological Association.

### Sample

The total sample included 323 users from five fitness centres in private ownership from Novi Sad in Serbia, of which 18.9% were men and 81.1% women with an average age of  $28.52 \pm 8.41$ . Of the total number of respondents, 0.3% finished primary school, 2.3% high school (three years), 21.9% high school (four years), college and university 74.2% (1.3% did not answer this question). As the sample consists of only five fitness centres in a single city, any generalisation regarding the findings will need to be done with caution.

**Table 1. DURATION AND FREQUENCY OF EXERCISING**

<b>Duration of exercising</b>	<b>%</b>	<b>Frequency of exercising</b>	<b>%</b>
<1 year	37.5	<2 hours per week	7.0
1-2 years	13.8	2-4 hours per week	31.9
2-3 years	9.1	4-6 hours per week	29.2
3-4 years	8.7	6-8 hours per week	13.6
>4 years	30.9	>8 hours per week	18.3

The sample of fitness centres presents the sub-sample of fitness centres in the region of the town of Novi Sad, the capital of the Province of Vojvodina, which is socially and economically a more developed area of Serbia. In all fitness centres, the service is individually programmed and provided based on the specific needs and requests of the users. All fitness centres have

been working for more than 10 years. Regarding the duration of exercising in fitness centres, it can be seen in Table 1 that the sample of respondents largely represents either exercisers, who have just started with exercising (37.5%), or those who have participated in fitness programmes for four years and more. Taking into account the frequency of exercising per week, most respondents are in the categories of 2-4 hours (31.9%) and 4-6 hours (29.2%).

### Research instruments

Research on quality of service are frequently based on SERVQUAL questionnaire model (Larson & Steinman, 2009), which was also applied in this study. Service quality was measured using the scale of Brady and Cronin (2001), adapted by Alexandris *et al.* (2004), in order to evaluate the dimensions and sub-dimensions.

**Physical environment quality:** Macro factors with one sub-scale and three items (“location”, “working hours” and “ambient conditions”); Micro factors with two sub-scales and eight items including four items from the dimension, “Cleanliness” (“facilities are clean”), and four items from the dimension, “Equipment and conditions for exercise” (“equipment is in good condition”).

**Interaction quality:** One sub-scale and four items covering “Employees” (“employees are polite”) were used.

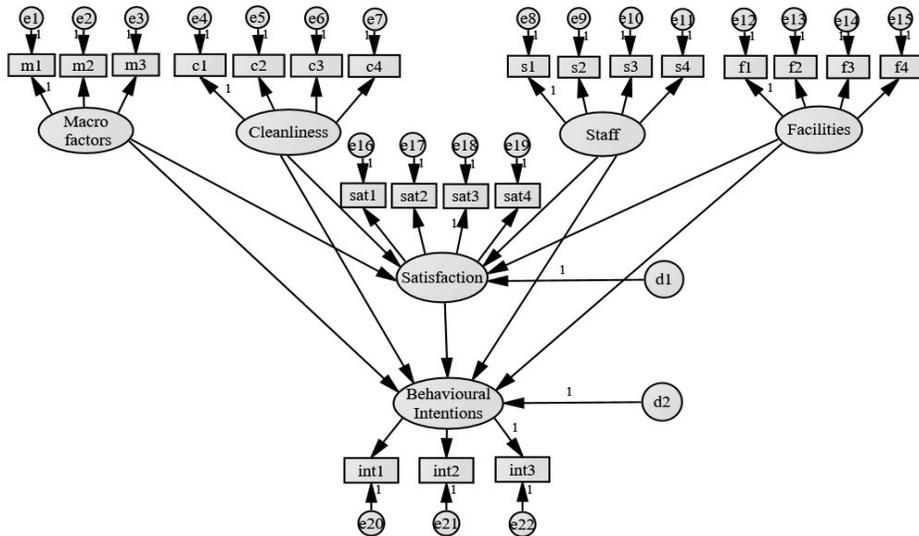
**Outcome quality:** When considering the “Customer purchase satisfaction”, four items were estimated. Two items were related to the “customer experience” and “fulfilment of expectations”, namely “The fitness centre services meet my expectations”; “I have a good experience at this fitness centre”. In addition, there are two items that address the “emotions” of users while receiving the service, namely “When I train in the fitness centre, I am relaxed” and “When I train in the fitness centre, I feel comfortable”. The items are based on the recommendations of the studies of Kang *et al.* (2011) and Biscaia *et al.* (2013). Behavioural intentions were measured with three items adopted from Zeithaml *et al.* (1996): “If I was to choose a fitness centre now, I would choose the same again”; “If anyone asked me for advice, I would recommend this fitness centre”; and an inverse variable “I would become a client of another fitness centre”.

Expected quality of service for outcome quality and behavioural intentions were not included in the research, so values referring to specific attitudes of the respondents regarding fitness centres where they exercise were obtained. In all scales, respondents were instructed to indicate the extent of their agreement with each item, using a five-point Likert scale ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5). Considering the sample, where 37.5% of respondents had been engaged in fitness activities for less than a year, it was presumed that it would be difficult for the respondents to classify them to positive or negative side of the scale. Therefore, the respondents were provided with an opportunity to give neutral answers.

### Analysis of data

Statistical analysis of data included the application of the t-test for determining the difference between expected and provided service quality, and the confirmatory factor analysis for analysing the impact of certain factors of service quality on satisfaction and future purchase

intentions of the user. Figure 1 displays a partial model of mediation and causal relation of the examined latent dimensions.



Macro factors=Location, working hours, physical environment  
 Facilities=Adequate space, equipment, size of fitness centre, audio-visual resources  
 1=Regression weight

**Figure 1. PARTIAL MEDIATION MODEL**

**RESULTS**

Table 2 presents the internal consistency, composite reliabilities and correlations for the examined latent factors. Cronbach's alpha coefficients were satisfactory (>0.70) for all scales ranging from 0.73 to 0.89. Additionally, composite reliabilities values were all above the suggested 0.70 threshold (Bagozzi & Yi, 1988).

**Table 2. INTERNAL CONSISTENCY, COMPOSITE RELIABILITIES (CR) AND CORRELATIONS FOR LATENT FACTORS**

Variables	$\alpha$	CR	1	2	3	4	5
1. Behavioural intentions	0.89	0.80	–	–	–	–	–
2. Satisfaction	0.89	0.88	0.52 <sup>b</sup>	–	–	–	–
3. Macro factors	0.79	0.74	0.05	0.20 <sup>b</sup>	–	–	–
4. Cleanliness	0.83	0.84	0.32 <sup>b</sup>	0.34 <sup>b</sup>	0.19 <sup>b</sup>	–	–
5. Staff	0.81	0.83	0.10	0.29 <sup>b</sup>	0.24 <sup>b</sup>	0.31 <sup>b</sup>	–
6. Facilities	0.73	0.75	0.20 <sup>b</sup>	0.31 <sup>b</sup>	0.27 <sup>b</sup>	0.43 <sup>b</sup>	0.37 <sup>b</sup>

<sup>a</sup>=p<0.05      <sup>b</sup>=p<0.01

The results of the correlations between the latent factors suggest that the highest correlation coefficients were found between the dimensions *purchase intentions* with dimensions of *satisfaction* ( $r=0.52$ ), and slightly lower with dimensions of *cleanliness* ( $r=0.32$ ) and *equipment and conditions for exercise* ( $r=0.20$ ). On the other hand, the dimension of *satisfaction* was significantly influenced ( $p<0.01$ ) by all dimensions of quality of service.

**Table 3. DESCRIPTIVE AND CFA ITEM STATISTICS FOR VARIABLES**

Variables	Perceived service (P) M±SD	Expected service (E) M±SD	Gap (P-E)	t	p	Factor loadings	SMCs
<b>Facilities</b>	<b>M=4.07</b>	<b>M=4.26</b>	<b>-0.19</b>				
Exercise equipment	4.19±0.78	4.42±0.59	-0.23	4.84	0.00	0.77	0.59
Equipment arrangement	4.08±0.79	4.14±0.76	-0.06 <sup>min1</sup>	1.41	0.15	0.73	0.53
Size of fitness centre	3.90±0.89	4.26±0.70	-0.36	6.69	0.00	0.64	0.41
Audio-visual devices	4.07±0.89	4.19±0.79	-0.12	2.32	0.02	0.59	0.35
<b>Staff</b>	<b>M=4.47</b>	<b>M=4.42</b>	<b>0.05</b>				
Appearance (uniformity)	4.27±0.87	4.04±0.92	0.23*	-3.91	0.00	0.59	0.35
Competency	4.57±0.68	4.61±0.55	-0.04	0.93	0.35	0.79	0.63
Presence	4.40±0.86	4.46±0.68	-0.06 <sup>min2</sup>	1.44	0.15	0.84	0.71
Kindness & pleasantness	4.61±0.67	4.58±0.55	0.03*	-0.99	0.32	0.86	0.74
<b>Cleanliness</b>	<b>M=4.20</b>	<b>M=4.45</b>	<b>-0.25<sup>max</sup></b>				
Hygiene in toilets & rooms	4.02±0.99	4.51±0.66	-0.49 <sup>max2</sup>	7.89	0.00	0.85	0.72
Hygiene of training area	4.14±0.89	4.52±0.60	-0.38 <sup>max3</sup>	7.05	0.00	0.84	0.69
Brightness of hall	4.22±0.76	4.33±0.66	-0.11	2.92	0.00	0.50	0.25
Ventilation of train. area	3.69±0.89	4.42±0.72	-0.73 <sup>max1</sup>	9.88	0.00	0.67	0.45
<b>Macro factors</b>	<b>M=4.16</b>	<b>M=4.26</b>	<b>-0.10<sup>min</sup></b>				
Location	4.22±0.73	4.32±0.61	-0.1	2.27	0.02	0.74	0.55
Environment regulation	3.78±0.84	4.03±0.75	-0.25	5.15	0.00	0.64	0.41
Working hours	4.46±0.59	4.45±0.54	0.01*	-0.46	0.64	0.67	0.45
<b>Behavioural intentions</b>	Mean	Mean					
Item 1	4.41	0.76				-0.87	0.76
Item 2	4.39	0.77				-0.86	0.74
Item 3#	2.32	1.03				0.64	0.41
<b>Satisfaction</b>	Mean	Mean					
Sat 1	4.21	0.73				0.74	0.54
Sat 2	4.40	0.66				0.82	0.67
Sat 3	4.49	0.65				0.75	0.57
Sat 4	4.50	0.66				0.80	0.63

\* Positive deviation of perceived from expected service (E<P)

<sup>min1,2</sup> Smallest (negative) gap between quality of perceived and expected service

<sup>max1,2</sup> Largest (negative) gap between quality of perceived and expected service

The differences (gaps) between the quality of perceived service and expected service, as well as the results of the confirmative factor analysis are presented in Table 3. The results show that there are statistically significant differences in 10 out of the 15 pairs (perceived and expected quality of service), which indicates that the expected quality of perceived service by users is significantly different from the perceived quality of perceived service. The greatest differences between the expected and perceived service are observed in the context of the factor *cleanliness* (hygiene of the toilets and changing rooms, hygiene of the space for exercise and ventilation of the space for exercise), and the smallest difference for the factors *equipment and conditions for exercise* (layout of machines) and *staff* (presence of instructors). Only in the case of pairs of variables for working hours and instructors appearance (uniform wearing), there was a positive bias in favour of the perceived service.

Generally, the negative gap between the dimensions of quality of provided services in fitness centres exists in three of the four dimensions. The highest is in case of the dimension *cleanliness* (0.25), and the smallest in dimension *macro factors* (0.10). A positive deviation of the perceived from the expected service can be seen in the dimension, *staff*. Therefore, by looking at all dimensions of quality of service, it is evident that the most important aspect of service is *cleanliness* (M=4.45) and then *staff* (M=4.42). Also, it is obvious that the results have shown that the staff and flexible working hours have influence on very positive opinion of the users demonstrated by the high customer satisfaction factor value M=4.41, as very important factors compared to other variables.

The next step of statistical analysis involved the structural model, which examined the causal relations and influences between the latent factors of service quality, satisfaction and future purchase intentions. Estimated value of normed chi-square ( $\chi^2/df=2.25$ ) is below the upper recommended value of 5 (Hooper *et al.*, 2008), which indicates good specification of the model. The values of the square root of average squared error of approximation (RMSEA=0.06) is lower than the upper acceptability limit, which indicates good fitting of the model (Armenski, 2014), thus the tested model corresponds to the data contained in the sample. Values of incremental fit indexes (NFI=0.90; TLI=0.91; CFI=0.94) are close to 1 and exceed the minimum acceptable value of 0.90, thus also indicating good model fitting. After evaluation of the total suitability of the measuring model, the metric suitability of the model was evaluated, on the basis of evaluations of convergent and discriminant validities of the constructs. All composite reliabilities values were above 0.7 which is acceptable according to Armenski (2014).

Figure 1 shows that *satisfaction* is a partial mediator between the dimensions of *service quality* and *purchase intentions* of users, with 43% of the total explained common variance of *satisfaction* and 59% of *purchase intentions*. The findings indicate that individual dimensions of service quality have the greatest statistically significant effect on *satisfaction* (dimension *cleanliness*  $\beta=0.47$  and *staff*  $\beta=0.39$ ) and on *purchase intentions* (*cleanliness*  $\beta=0.20$ ). At the same time, the results show that *customer satisfaction* has a high predictive effect on *purchase intentions* of users ( $\beta=0.63$ ).

## DISCUSSION

This research aimed to contribute to a better understanding of service quality and customer satisfaction in the context of fitness centres. The model of the study included both material and non-material aspects of the dimensions of service quality in relation to customer satisfaction and purchase intentions. The results of the correlation analysis show that all dimensions of *service quality* had a significant positive correlation with *satisfaction*, as confirmed in studies conducted by Lentel (2000) and Dhurup *et al.* (2006b), who reported that the perception of service quality is a statistically significant predictor of the variance of customer satisfaction. Further statistical analyses, which included a structural analysis, clearly showed the mediation effect of *satisfaction* that is achieved by the prominent influence of the factors *cleanliness* and *staff*, and its further impact on *purchase intentions* of users. Based on descriptive statistics within the dimension *cleanliness*, the results showed that the highest customer expectations are in terms of hygiene (hygiene of toilets and changing rooms with  $M=4.51$  and the hygiene of the training area with  $M=4.52$ ). At the same time, it is evident that the ventilation of the training area ( $M=3.69$ ) is its worst aspect.

Ramos *et al.* (2014) indicate the crucial importance of optimising the HVAC (heating, ventilating and air conditioning) system and user behaviour relating to the reduction of air pollutants in fitness centres. These authors point out that this optimisation leads to an increase in the contributions realised through sports activities. Therefore, it is clear that the lack of cleanliness can be a “trigger” of negative emotions (Pedragosa & Correia, 2009; Koenigstorfer *et al.*, 2010). Higher deviations in quality can lead to negative subjective experiences that may determine consumer perceptions of both material and non-material aspects of the service (Dave *et al.*, 2005). The significance of the physical attributes of services in sports and fitness centres (cleanliness, comfort and modern conditions for exercising) and characteristics of the staff also support the results obtained by Papadimitriou and Karteroliotis (2000).

In addition to the dimension *cleanliness*, the most important aspect of quality of service was the dimension *staff* (positive bias of perceived from expected service was observed only in this dimension) (Table 3), indicating that the fitness centres have made a careful selection of the staff. The best ratings by the customers of the technical skills of staff are also highlighted in the results of related research conducted by Nuviala *et al.* (2012). On the other hand, Pedragosa *et al.* (2015), reporting on the managerial implications of their research, emphasise the aggregation of consumer perceptions of both material and non-material aspects of the service and staff training in order to identify “triggers” of positive emotions that can contribute to an increase in overall customer satisfaction of fitness centres. On the basis of these results, it is clear that in formulating the business strategy of fitness centres management for strengthening the connections with current customers, the emotional value of the service must have a special place (Kang *et al.*, 2011).

The professionalism of the staff is one of the most important determinants of customer satisfaction (Dhurup *et al.*, 2006a) and there are other situational and personal factors. The findings published by many authors (Greenwell *et al.*, 2002; Alexandris *et al.*, 2004; Yildiz, 2011) indicate that the most significant factors for customers of fitness centres are the

programmes and the physical environment. The results of this research show that respondents, in the context of the factor *equipment and conditions for exercising*, expect the most from *exercise equipment* and the *size of the fitness centre*. Avourdiadou and Theodorakis (2014) indicate that a distinction should be made between new and older clients of fitness centres. For that reason, Dagger and Sweeney (2007) state that marketing messages of promotional campaign directed at new clients must contain information that refers to tangible elements of the service in order to help create a perception of quality services. Therefore, variations in the quality of perceived services in relation to the expected service can be expected among the consumers of the sports services (Robinson, 2006, 2007).

## CONCLUSION

This research constitutes the initiation of the issue of the quality of fitness services, in order to achieve double benefit, both regarding the improvement of the service provided to users, and regarding the increase of profit for the owners of fitness centres. It is interesting that none of the centres have done any similar research on the initiative of their management. Therefore, observed results could be understood as the goals for future planning of development in the sample of fitness centres used by the respondents, in order to decrease the difference between the expected and received quality, since short reports were submitted to their managers.

The importance of the selection and training of employees are a top-priority and should be emphasised as a managerial implication based on the results of this research, with a strong concern about the cleanliness of facilities, given the greatest dissatisfaction of users in regard to this aspect. Quality of offer certainly depends on other elements as well, such as price, promotion and characteristics of recreational programmes (services) offered by the fitness centres. Therefore, the authors propose that future research should also take into consideration these elements of the marketing mix, in order to obtain relationships between these and other elements of the marketing mix with all the factors included in this research.

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(Subject editor: Prof Melville Saayman)