The Relationship between Service Quality, Physical Evidence and Customer Satisfaction in Sports Centres

Shahab Bahrami¹, Mohammad Saeid Kiani²*, Leila Nazari³ and Leila Shahbazpour⁴

¹ Assistant Professor, Department of Sports Management, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran.
² PhD Student, Department of Sports Management, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran.
³ PhD student, Department of Sports Management, Kurdistan University, Sanandaj, Iran.
⁴ PhD Student in Sports Management, Faculty of Physical Education and Sport Sciences, Guilan University, Rasht, Iran.

ABSTRACT

Purpose: Ensuring customer satisfaction is one of the basic requirements of quality management systems and excellence models, is obtained by comparing before the customer buys the expected performance with the actual perceived performance. This study aimed to investigate the relationship between quantitative and physical evidence and service quality with customer satisfaction of sports facilities in District 5 of Tehran.

Methodology: The research method is correlational in terms of implementation method. The statistical population includes all those who have used the services of sports facilities in District 5. 395 subjects were selected using cluster sampling as research samples. To collecting data, three questionnaires include quantitative and physical evidence (researcher-made), SERVQUAL (Parasuraman and Zithamel, 1988) and customer satisfaction (Kooshesh, 2014), was used. The validity of which was determined by 12 experts in the field of sports management was confirmed. Also, in a pilot study on 40 subjects using Cronbach's alpha, the reliability of the questionnaires was 0.86, 0.89 and 0.91, respectively.

Findings: After the data collection, descriptive statistics, Kolmogorov–Smirnov tests, Pearson correlation, and multistage regression in SPSS software were used. The results showed a significant relationship between physical and quantitative characteristics and service quality with customer satisfaction. Also, there is an important relationship between customer satisfaction and the components of perceived factors, reliability, responsiveness, reliability and empathy. In addition, the variables of physical and quantitative characteristics and quality of services are significant predictors of the variable of customer satisfaction. Finally, suppose the quantitative and physical evidence and the quality of services of health clubs are at a suitable level. In that case, it can lead to customer satisfaction and more customer membership in that sports space.

Originality: We showed the correlations between physical evidence, satisfaction, and loyalty in sports centres which were less noticed in previous studies.

CONTACT Mohammad Saeid Kiani mohamadsaeidkiani@gmail.com

ORCID

Shahab Bahrami ▶️ https://orcid.org/0000-0002-6268-5012
Mohammad Saeid Kiani ▶️ https://orcid.org/0000-0001-8882-1097
Leila Nazari ▶️ https://orcid.org/0000-0001-9870-4396
Leila Shahbazpour ▶️ https://orcid.org/0000-0001-6122-863X
1. Introduction

Assets are divided into tangible and intangible assets. Intangible assets (INTANGIBLES) are created and developed due to the company's performance in various fields. Real assets (TANGIBLES) are purchased or acquired without connection to the version and managers' decisions. They were part of the capital that is seen in the balance sheet as land, buildings, machinery, inventory of raw materials, inventory of manufactured goods (Gholami Torkesaluye et al., 2020).

With the advent of the third millennium AD, many concepts in organizations have found a different meaning. They have taken on a new role in this transformation in the "customer" of societies. The word is not safe. Human relations are understood in a two-way interaction because its purpose no longer merely evokes a commercial transaction. So that each person is a customer of other people on the one hand and has customers. On the other hand, in this age, the key to survival in organizations' healthy and long-term competition is to constantly meet the expectations and desires of customers as they think and are valuable to them Formation (Rajouei, 2008).

Customer satisfaction is a result that is obtained by comparing before the customer buys the expected performance with the actual perceived performance and the cost paid (Attafar & Mansouri, 2011). Undoubtedly, the most critical assets of most organizations are their customers. Customers are a valuable source of opportunities, threats, and operational questions related to the industry because of their direct connection to an organization's actions.

Today, to grow and survive in the field of economic competition, companies and organizations must pay special attention to customer orientation and increase their relationship with buyers of goods more than before. In new business processes, achieving customer satisfaction has a significant and vital place in companies' goals. Senior managers know very well that their success in achieving the firm's goals depends on customer satisfaction. On the other hand, it cannot be said that all customers have an equal role in the company's success. Therefore, satisfying key customers will be more sensitive.

On the other hand, one of the variables directly related to customer satisfaction is the quality of service. Philip Cutler believes that service, activity, or benefit is intangible and intangible that one party exchanges with the other and does not seek ownership. The production of services may or may not depend on the physical commodity (Kotler & Armstrong, 2017). Memari (2018) argued that An optimal management of tangible factors of service quality such as physical elements is helpful to develop customers' behavioral attention to managers (Memari, 2018). On the other hand, there are different approaches to defining quality; So that in the philosophical approach, quality is synonymous with inherent superiority. In the technical approach, quality is attributed to the degree of product compliance with technical standards. In the customer-centred approach, quality is a subjective issue determined and explained by its recipients. It seriously depends on customer perceptions, which seems to be of particular interest in defining quality in the field of service (Schneider & White, 2004).
In this regard, Abdulqawi and Owen (2011) define service quality as the degree of discrepancy between customers’ perceptions and expectations of services. In recent decades, service quality has become one of the most important issues in academic research (Ho & Lin, 2010). The model is created, evaluated. The SERVQUAL scale has been proposed by Parasuraman et al. (1985) and has been modified several times in subsequent years. In the definition of the term characteristics, quantitative characteristics of the physical refer to the characteristics and characteristics that can be measured, for example, in sports venues, the quality of products used in the hall, such as balls, nets and light (natural and artificial light) in characteristic pools. Quantity includes water quality and the quality of service delivery that can be measured in one of the quantitative characteristics of that physical evidence. Based on the gap theory, this scale defines service quality based on the gap between customer expectations and perceptions. The final version includes a 22-item scale in five components: tangible factors, reliability, responsiveness, guarantee, and empathy. Expects and perceives the quality of the service.

However, Cronin and Taylor (1992) question the relationship between expectations and performance as a basis for measuring service quality and the Servperf scale, which directly correlates customer perceptions of performance. In the face of services examined, suggested. Although these tools can measure the quality of services in many service organizations, their components and items in some services need to be modified and reviewed. Based on this limitation, tools have been developed to measure the quality of services in various services, including Internet sites. In sports, various models have been presented to evaluate the quality of services. The quality of service models has been used in the health and wellness industry (Lagrosen & Lagrosen, 2007) and (Moxham & Wiseman, 2009). The only difference is based on the number of components. And are the items of the questionnaire and are generally based on the SERVQUAL and SERPORF model. Various researches have been done on the relationship between service quality and customer satisfaction. For example, Fesanghari et al. (2017), by examining the regression pattern of service quality and customer satisfaction in sports clubs, reported a positive and significant relationship between service quality and customer satisfaction. Multiple regression tests introduced tangible quality items, empathy and confidence as stronger predictors of customer satisfaction. Also, Bastami et al. (2015), by examining the relationship between service quality and attracting and retaining customers of sports facilities in Tehran, reported that there is a significant relationship between the quality of services perceived by customers of sports facilities in District 20 of Tehran and their satisfaction and loyalty, respectively. Memari et al. (2014) argued that the quality, value, customer satisfaction and expectations were the most important. Also, sufficient attention to the image, and demographic characteristics should be considered (Memari et al., 2014).

Outcome quality, interaction quality, program quality and physical environment quality correlated with customer satisfaction. In addition, Karimi and Nourbakhsh (2017) examined the relationship between expectations, service quality and satisfaction with women's participation in bodybuilding clubs. They reported a significant
relationship between company motivation, expectations, satisfaction, and service quality. There were multiple relationships between expectations, service quality and satisfaction with women's company motivation. The best predictor of motivation to participate in sports activities was expectations. In terms of service quality dimensions, interaction quality and efficiency and satisfaction, empathy and tangibility were the best predictors. Extensive research has been conducted in this field abroad. Hennayake (2017) points out that what banks offer as a product and service is almost the same, and the only difference is in their quality. This study showed that the human dimension related to service quality has a more significant impact on customer satisfaction. The two components of trust and accountability have the most significant effect on happiness. Also, Van Lierop and El-Geneidy (2016) conducted a study on the relationship between service quality, customer satisfaction and loyalty in the public transport industry. They showed that using a series of specific strategies by transport agencies can satisfy. Rahbar et al. (2015) argued that Satisfaction and trustiness had contribution on situational factors. Also, satisfaction and perceived trustiness had a great role on loyalty formation and firm’s benefits, but considerations on value, as a mediator factor, were suggested (Rahbar et al., 2015).

It attracted service users intending to increase the support of various groups. Familiarity with passenger perceptions provides valuable information to transportation organizations about customer satisfaction and loyalty (Ahmadi & Asgari Dehabadi, 2015). Many organizations and institutions offer a variety of services to customers, of which health clubs are one Section that provides a variety of services to customers in various sports. Sports centres can offer different services to customers according to the kind of sports, age groups, social and economic levels, health (healthy and disabled). Therefore, the more people can satisfy customers, the more they have a competitive market and are more successful in attracting their customers. Perhaps in the past, customers were forced to choose limited services due to the lack of variety of services, but now they have more options to choose the services and products they want, making it difficult to choose (Amin Bidokhtthi & Faraji Ghazani, 2013).

In this regard, paying attention to the quality of health clubs is very important for customer satisfaction. Since sports physicals, as centres that are in direct contact with people, to grow and survive, need to identify and strengthen the factors affecting customer attraction, study and identify the factors that lead to the presence of people and their attraction to such places. It is important in sports management because health clubs and spaces in today's world are centres that accommodate many people interested in sports activities; modern and comprehensive principles and criteria must be in place to ensure the health and safety of sports programs and activities. Anticipate and apply these places to the general public and users of these places. Due to various reasons such as increased demand for supply and limited competition in various fields, the demands and needs of customers were not paid much attention, and people had to receive the goods or services they needed in any quality. In recent years, due to increasing supply and competition, manufacturing and service organizations to maintain survival and increase profitability and market share have been forced to provide a variety of goods and services, with better quality and tailored to the wishes, desires and tastes of
customers. On the other hand, customers' awareness of goods and services has also increased, and with the increase in the number of competitors, they no longer accept any goods or services (Almasi et al., 2015). Mandalizadeh and Amiri (2021) argued that for improving the innovative marketing to the innovation capability of clubs, supporting the ideas and creativity of staff innovations to improve products and provide better sports services can be suggested (Mandalizadeh & Amiri, 2021).

Today's customers are looking for a product or service that best meets their needs, wants and tastes and has the right quality and price. One of the factors that can play a role in attracting more customers and spectators to these places, and it is necessary to pay more attention to the designers, architects and builders of health clubs, is to pay attention to the physical features and few health clubs. In previous research, items such as security (Shakouri Asl, 2017), permeability, diversity, readability, flexibility, visual proportions and sensory richness (Karimollahi et al., 2016), physical graphic features, access to Stadium, parking, cleanliness, beauty, the comfort of seats, allocation of space and food services (Nazemi, 2013), staff, location, product and facilities and beauty of equipment, allocation of space, access to Stadium, the comfort of seat Scoreboard quality, foodservice and Stadium cleanliness (Dhurup et al., 2010) have been mentioned as various factors in customer attraction, satisfaction and their re-presence for re-use of services. Of course, only some of these cases are related to health clubs, so the present study intends to examine the relationship between physical and quantitative characteristics with the quality of service and customer satisfaction in health clubs in Tehran's District 5.

2. Methodology

The present study is applied in terms of purpose, and the nature of the research is descriptive in terms of strategy and correlation in terms of method, which was conducted by field method. Because a complete list of statistical populations was not available, the researcher used cluster sampling. The study's statistical population includes all those who use the services of sports facilities in District 5. The sampling and calculating the sample size online use Cochran's formula method, reviewing the list of sports facilities in District 5 of Tehran Municipality. Various sports were identified in the area, which operates as women's sports venues, men's sports venues, and men's-women's sports venues. According to Cochran's formula, 385 samples needed for unlimited communities. Taking into account the return rate of the questionnaire, more subjects were selected. Finally, by removing the defective questionnaires, 395 questionnaires were used using cluster sampling from customers of different sports venues. District 5 of Tehran was collected.

\[ n = \frac{Z^2pq}{d^2} = \frac{(1/96)^2 \times (0/5) \times (0/5) / (0/05)^2}{15} = 384/15 \]

Three questionnaires were used, including the quantitative and physical evidence questionnaire: A researcher-made questionnaire was used in this field because there was...
no standard quantitative and physical characteristics questionnaire. This questionnaire consists of 30 questions designed in the five Likert value range (very low = 1 to very high = 5). This questionnaire does not have a subscale and means physical evidence, physical factors involved in people's satisfaction with sports spaces such as light, ventilation, humidity, temperature. These can be observed at the desired and standard levels. Lead to creating a suitable space for sports activities and quantitative features related to the quantity of sports facilities, including gates. SERVQUAL: SERVQUAL Parasuraman et al. (1985) standard questionnaire was used to assess the quality of services in sports facilities in five regions of Tehran. This 22-item questionnaire includes five components of tangible factors (questions 1 to 4), reliability (questions 5 to 9), responsiveness (questions 10 to 13), reliability (questions 14 to 17) and empathy (questions 18 to 22). It was designed in the 7 Likert value range (strongly disagree = 1 to strongly agree = 7). This questionnaire is in two parts; 22 questions are used to assess the expected status of service quality, and 22 questions are used to determine perceptions of service quality. Customer Satisfaction: To measuring customer satisfaction, Koshesh (2014) Questionnaire was used. This questionnaire has 12 questions and a 5-point Likert scale (strongly disagree = 1 to strongly agree = 5) and its components.

Twelve sports management experts have reviewed the questionnaires and confirmed them. In a pilot study on 40 subjects using Cronbach's alpha, the reliability of the questionnaires was 0.86, 0.89 and 0.91, respectively. We used the SPSS software at a significance level of P≤0.05. To analyzing the data, the "Intra-Subject Test" method has been used.

3. Results

The descriptive findings of the study show that 192 people in the statistical sample, 49%, were men and 203 people, or 51%, were women. In terms of gender, 35% of the subjects were single, and 63% were married. Also, 10% of the research sample are under 20 years old, 27% are between 20-30 years old, 37% are between 40-31 years old, 19% are between 50-41 years old, and 6% are over 50 years old. In terms of education, the subjects are 6% undergraduate, 19% diploma, 10% associate degree, 42% bachelor's degree, 18% master's degree and 3% doctorate.

The importance and application of the normal distribution are due to the "Central Limit Theorem". This theorem states that for random variables with finite variance, the mean samples of the randomly distributed, independent (iid) random variables will be normally distributed. This is why the distribution of most physical quantities obtained as the sum of several separate processes (e.g. measurement error) is assumed to be expected.

The findings of Table 1 show that there is a significant relationship between quantitative and physical evidence and customer satisfaction (P≤0.01, r = 0.472). Also, between customer satisfaction with service quality (P≤0.01, r = 0.653) and its components including tangible factors (P≤0.01, r = 0.522), reliability (P≤0.01, r = 0.57
There is a significant relationship between responsiveness (P≤0.01, r = 0.515), reassurance (P≤0.01, r = 0.574) and empathy (P≤0.01, r = 0.341).

**Table 1.** Correlation matrix between quantitative and physical evidence and service quality with customer satisfaction.

<table>
<thead>
<tr>
<th>Customer satisfaction</th>
<th>The correlation coefficient</th>
<th>Physical and quantitative characteristics</th>
<th>Tangibles</th>
<th>Reliability</th>
<th>Responsiveness</th>
<th>Sympathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.001</td>
<td>0.472</td>
<td></td>
<td>0.653</td>
<td>0.522</td>
<td>0.557</td>
<td>0.515</td>
</tr>
<tr>
<td>0.001</td>
<td>0.472</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.001</td>
<td>0.472</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.001</td>
<td>0.472</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.001</td>
<td>0.472</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.001</td>
<td>0.472</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.001</td>
<td>0.472</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.001</td>
<td>0.472</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.001</td>
<td>0.472</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.001</td>
<td>0.472</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.001</td>
<td>0.472</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the results of **Table 2**, the result of the Watson camera test was 1.734. According to the fact that if the value of the Watson camera test is between 1.5-2.5, regression is confirmed; therefore, it shows that the regression test can be used.

**Table 2.** Watson camera test result for error independence.

<table>
<thead>
<tr>
<th>Watson Camera Test</th>
<th>Standard estimation error</th>
<th>Modified R squared</th>
<th>Square R</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/734</td>
<td>6.071</td>
<td>0.425</td>
<td>0.426</td>
<td>1</td>
</tr>
<tr>
<td>5/997</td>
<td>0.439</td>
<td>0.442</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

**Table 3.** Significance test of regression equation between two variables of physical evidence and quantitative service quality with customer satisfaction.

<table>
<thead>
<tr>
<th>Significance level</th>
<th>F</th>
<th>Average squares</th>
<th>Degrees of freedom</th>
<th>Total squares</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.001</td>
<td>292/253</td>
<td>10770/229</td>
<td>1</td>
<td>10770/229</td>
<td>Regression</td>
</tr>
<tr>
<td>0.001</td>
<td>36/852</td>
<td>393</td>
<td>14483/001</td>
<td></td>
<td>Leftover</td>
</tr>
<tr>
<td>0.001</td>
<td>394</td>
<td>25253/230</td>
<td></td>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>0.001</td>
<td>557/678</td>
<td>11155/357</td>
<td>2</td>
<td></td>
<td>Regression</td>
</tr>
<tr>
<td>0.001</td>
<td>392</td>
<td>14097/874</td>
<td></td>
<td></td>
<td>Leftover</td>
</tr>
<tr>
<td>0.001</td>
<td>394</td>
<td>25253/230</td>
<td></td>
<td></td>
<td>Total</td>
</tr>
</tbody>
</table>

**Table 4.** Significant variables in regression.

<table>
<thead>
<tr>
<th>Significance level</th>
<th>T</th>
<th>Standard coefficient (Beta)</th>
<th>Non-standard coefficients</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.001</td>
<td>5/852</td>
<td>2.046</td>
<td>1.975</td>
<td>Constant</td>
</tr>
<tr>
<td>0.001</td>
<td>17/095</td>
<td>0.653</td>
<td>0.018</td>
<td>The quality of service</td>
</tr>
<tr>
<td>0.002</td>
<td>3/116</td>
<td>2.429</td>
<td>7.568</td>
<td>Constant</td>
</tr>
</tbody>
</table>
Also, according to Table 3, the significance of the coefficient of determination or linear relationship in model 1 between the service quality variable with customer satisfaction. The values were $P = 0.001$, $F = 292.253 (1, 393)$ and in model 2 between service quality and physical evidence and quantitative measures are approved by customer satisfaction with values of $P = 0.001$, $F = 155.091 (2, 392)$. Finally, the results of Table 4 show that the modified standard coefficient for the service quality variable is equal to $B = 0.653$, which is significant ($P = 0.001$, $t = 5.852$), in other words, this situation indicates that this independent variable is a significant predictor of the dependent variable (customer satisfaction). But in the second sequence, with the entry of physical and quantitative characteristics into the model, the significance level is still established. The variables of physical and quantitative characteristics and service quality are significant predictors of customer satisfaction. Its regression model can be presented as follows:

$\text{(Physical and quantitative characteristics)} B_2 + \text{(Service quality)} B_1 + B = \text{Customer satisfaction}$

$\text{(Physical and quantitative characteristics)} +0.077 + \text{(Service quality)} +5.265 + 265 = \text{Customer satisfaction}$

4. Managerial implications

Managers provide more attractive, permanent, and profitable ground by providing desirable services.
Use of new and advanced facilities for sports as well as timely repair of damaged equipment. Assign more points to experienced samples. Provide diverse and appropriate programs to meet the needs of people at different times and for all other age groups.

5. Discussion and conclusion

Despite the long time spent on service quality and methods of measuring and evaluating it, not only has attention to this vital issue not diminished but also due to the growing importance of services in the economies of countries, its role has become more critical. It is widespread, and no business can survive without services. Therefore, club managers must pay the most attention to customers' needs, opinions, and protests about services to retain customers and provide better services. By examining the problems and addressing the views, and being aware of the level of customer satisfaction, by increasing the quality and speed of services, we can help a lot to maintain them.
The primary purpose of this study was to investigate the relationship between physical and quantitative characteristics with service quality and customer satisfaction. Findings showed that there is a significant relationship between quantitative and ecological aspects with service quality. Also, there is an important relationship between physical and quantitative characteristics with tangible factors, reliability, responsiveness, reliability and empathy. This shows that the more substantial the physical evidence and the fewer health clubs, the higher the quality of customer-perceived service. In addition, the variable of physical and quantitative characteristics is a significant predictor of the variable of service quality. The quantitative and ecological characteristics variable is a significant predictor of the variable of customer satisfaction. This means that the more desirable the quantitative and physical evidence of health clubs such as lighting, ventilation, green space, the more satisfied the customers who use these health clubs. According to the reviewed materials related to health clubs and factors involved in promoting customer satisfaction with health clubs, quantitative and physical factors play a role in people's satisfaction with the health clubs and make the space desirable. And each of these factors must be complemented by other factors and organized to meet customer needs. The research findings are consistent with the results of (Dhurup et al., 2010; Karimollahi et al., 2016; Koshesh, 2014; Nazemi, 2013). The findings also showed that there is a significant relationship between service quality and customer satisfaction. Also, there is a significant relationship between customer satisfaction and the components of perceived factors, reliability, responsiveness, reliability and empathy.

This shows that customer satisfaction has a positive relationship with the quality of services provided to them in the possibility of sports. The higher the quality of services offered, the higher their level of satisfaction. Although the presence of customers in health clubs is training, and each customer engages in sports activities with a particular motivation, the quality of services provided can also create a double incentive for them to do sports. Even sports activities for some people looking for fitness are somewhat tedious. The quality of service provided that leads to customer satisfaction can reduce these difficulties to some extent. Numerous studies have shown a positive relationship between service quality and its dimensions with customer satisfaction, which can find in the studies of (Bastami et al., 2015; Fesanghari et al., 2017; Hennayake, 2017; Karimi & Nourbakhsh, 2017; Van Lierop & El-Geneidy, 2016) pointed out and are consistent with the present study. On the other hand, the quality of services and the variable of physical evidence and quantitative predictors are significant predictors of customer satisfaction. Although other researches do not exclusively mention the ability to predict customer satisfaction by quantitative and physical evidence, however, the quality of services is a significant predictor of customer satisfaction, which can be researched by Fesanghari et al. (2017) pointed out.

In general, the research results showed the relationship between all three variables of physical and quantitative characteristics, service quality and customer satisfaction of sports facilities in District 5 of Tehran. Physical features and few places seem to pay more attention to tangible and observable factors. The customer sees the desired features
and can express their satisfaction about its level. The customer can also compare physical and quantitative features with international, national standards or health clubs in other parts of Tehran. However, as its name implies, it considers intangibles such as trust, confidence, and empathy regarding service quality, which seem a little more challenging to measure. However, quantitative and physical features complement the quality of services and consider tangible and intangible factors regarding the quality of sports facilities. The research results also showed that quantitative and physical characteristics with the quality of services could predict customer satisfaction with sports facilities in Tehran's 5th district. The fact that the quantitative and physical evidence and the quality of services in sports facilities in Tehran's District 5 are at a high level can lead to the customer being a member of that sports facility for a long time and attracting more customers by word of mouth. Be a sport that can be financially and economically significant.

**Disclosure statement and funding**

The authors declare no potential conflicts of interest. The present study received no financial support from any organization or institution.

**References**


رابطه بین کیفیت خدمات، شواهد فیزیکی با رضایت مشتریان اماکن ورزشی

شهاب پهرامی، محمد سعید کیانی، لیلا نظری، لیلا شهبازیور

استادیار، گروه مدیریت ورزشی، واحد کرمانشاه، دانشگاه آزاد اسلامی، کرمانشاه، ایران.

1 دانشجوی دکتری گروه مدیریت ورزشی، واحد کرمانشاه، دانشگاه آزاد اسلامی، کرمانشاه، ایران.

2 دانشجوی دکتری گروه مدیریت ورزشی، دانشگاه کردستان، سنندج، ایران.

3 دانشجوی دکتری مدریت ورزشی، دانشکده تربیت بدنی و علوم ورزشی، دانشگاه قیام، رشت، ایران.

چکیده

هدف: تأیین رابطه مثبتی که این ارتباط سیستمی مدل‌سازی کیفیت خدمات و مدیریت کیفیت مدل‌سازی توسط استاد محمد سعید کیانی مستند می‌شود. در این تحقیق بررسی ارتباط بین ویژگی‌های کیفیت خدمات و شاوهای فیزیکی با رضایت مشتریان اماکن ورزشی مطالعه گردید.

روش: روش تحقیق به روش اجرای نوع همبستگی است. جامعه مطالعه شامل تمام کسانی بود که از خدمات اماکن ورزشی منطقه 5 استفاده کرده‌اند. تعداد 390 نفر از آنها با استفاده از نمونه‌گیری خوشه‌ای به‌عنوان نمونه‌های تحقیق انتخاب گردید. برای این مطالعه بانوان و مردان ویژگی‌های شاوهای فیزیکی (محقق سابقه، سروکوال و ویژگی‌های ورزشی) مورد نظر قرار گرفت. همچنین، در یک مطالعه ارتباطی روی رضایت مشتریان ویژگی‌های ورزشی مورد بررسی قرار گرفت. همچنین، در یک مطالعه ارتباطی روی رضایت مشتریان ویژگی‌های ورزشی مورد بررسی قرار گرفت. با استفاده از نمونه‌های تحقیق و اجرای آزمون‌های ارتباطی، رضایت مشتریان به‌عنوان متغیر مستقل و رضایت مشتریان به‌عنوان متغیر وابسته مطرح گردید.

یافته‌ها: یافته‌ها عمدتاً مربوط به تحریک و شاوهای فیزیکی و رضایت مشتریان ایجاد شد. در پاسخ، نظام تحریکی و شاوهای فیزیکی، باعث افزایش رضایت مشتریان و بهبود کیفیت خدمات می‌شود. همچنین، دریافت نتایج نشان داد که کیفیت خدمات و شاوهای فیزیکی می‌تواند به بهبود رضایت مشتریان کمک کند. نتایج نشان داد که کیفیت خدمات و شاوهای فیزیکی می‌تواند به بهبود رضایت مشتریان کمک کند. نتایج نشان داد که کیفیت خدمات و شاوهای فیزیکی می‌تواند به بهبود رضایت مشتریان کمک کند.

کلید واژه: کیفیت خدمات، رضایت مشتریان، فیزیکی، اصل و اثرات مناسباتی، ارتباطی و ارتباطی.

تماس با نویسنده مسئول: محمد سعید کیانی

ارکید

mohammadsaeidkiani@gmail.com

مراجع

[1] https://orcid.org/0000-0002-6268-5012
[2] https://orcid.org/0000-0001-8882-1097
[3] https://orcid.org/0000-0001-9870-4390
[4] https://orcid.org/0000-0001-6122-863x