

## The Effects of Service Quality on Customer's Satisfaction in Fitness Center in Semarang, Indonesia

**Suyatman**

*Department of Sports Management, Faculty of Sports Science,  
Chulalongkorn University, Thailand*

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**Kaveepong Lertwachara**

*Department of Sports Management, Faculty of Sports Science,  
Chulalongkorn University, Thailand*

**Abstract:** This study was designed to explore the level of service quality and its effects on customer satisfaction. Data were collected from 420 men and women from 14 fitness centers. The findings showed that four dimensions such as assurance, empathy, reliability, responsiveness, of perceived service quality had a higher value than expected service quality. Tangible dimension was the only dimension that did not meet customer expectations. Based on the regression analyses, responsiveness was the only variable that had negative effect on S1 (specific services provided). Basically, there was a positive relationship between service quality and overall satisfaction. Tangible dimension, empathy dimension, personal class, and membership had a positive relationship to overall satisfaction. Based on the findings, the managers of fitness center should consider responsiveness dimension because it has negative effect on specific services provided. Moreover, the researchers recommended that fitness centers should emphasize to increase the variables that have a positive effect on overall satisfaction.

**Keywords:** fitness center; service quality; satisfaction; Indonesia

**Abstrak:** Penelitian ini dirancang untuk mengeksplorasi tingkat kualitas layanan dan pengaruhnya terhadap kepuasan pelanggan. Data dikumpulkan dari 420 pria dan wanita dari 14 pusat kebugaran. Temuan menunjukkan bahwa empat dimensi seperti jaminan, empati, keandalan, daya tanggap, kualitas layanan yang dirasakan memiliki nilai lebih tinggi dari kualitas layanan yang diharapkan. Dimensi *tangible* merupakan satu-satunya dimensi yang tidak memenuhi harapan pelanggan. Berdasarkan analisis regresi, hanya variabel *responsiveness* yang berpengaruh negatif terhadap S1 (pelayanan khusus yang diberikan). Pada dasarnya, ada hubungan positif antara kualitas layanan dan kepuasan secara keseluruhan. Dimensi berwujud, dimensi empati, kelas pribadi, dan keanggotaan memiliki hubungan positif terhadap kepuasan secara keseluruhan. Berdasarkan temuan, pengelola pusat kebugaran harus mempertimbangkan dimensi responsif karena memiliki efek negatif pada layanan tertentu yang diberikan. Selain itu, peneliti merekomendasikan bahwa pusat kebugaran harus menekankan untuk meningkatkan variabel yang berpengaruh positif terhadap kepuasan secara keseluruhan.

**Kata Kunci:** pusat kebugaran; kualitas layanan; kepuasan; Indonesia

### INTRODUCTION

In recent decades, the fitness industry has greatly risen in interest and participation around the world (Dias et al., 2019). In Indonesia, the growth of fitness centers has been increasing. According to the latest report (Rodriguez, 2018), 14 country health clubs in Asia-Pacific, including Indonesia, attracted 22 million members and generated USD16.8 billion revenue. The data demonstrated an increase of 0.18% in Indonesia, which could also be seen in Semarang city (Aprianto & Sugiharto, 2020).

Semarang city is one of Indonesia's biggest cities, located in Jawa Tengah province. The economic sector grows rapidly and is the main support for the province's economic development (Fafurida & Oktavilia, 2020). According to Thenu (2019), the rising investment such as in the property,

vehicle, food, and sports industries was the economic driver in the city. In this case, sports industries, mainly fitness businesses, have been growing. As a result, several well-known fitness centers have been built in Semarang, i.e., Celebrity Fitness, Fitness First, and Refit, including the recent prominent one, Fitnation (Kampusnesia, 2018).

Despite this, several low-cost fitness centers have been established, and even longer (Nanda et al., 2020). For instance, Pion, MBC, Anhesa, Fitsoul fitness center, and others. Here are some characteristics of a low-cost fitness center, such as a gym-only proposition, limited fitness equipment, a person as staff to operate a fitness center. Prices are set at least 50% lower than the industry average (Arroyo et al., 2020). In addition, Nanda et al. (2020) stated that people visited low-cost fitness centers in Semarang for various reasons. Kusumasari & Dwiyanto (2013) added that the primary reason was that they wanted to lose weight and have a better body shape.

Currently, competition in the fitness center business is high, while they desperately need to gain significant customers. To increase the number of customers, they should prioritize customer satisfaction since it is crucial and impactful (Fernández et al., 2018). Customer satisfaction is considered one of the best ways to attract and maintain customers (Dias et al., 2019). Kim et al. (2016) highlighted that satisfaction could be achieved by providing the needed services. Moreover, service quality refers to the discrepancy between a customer's expected service and perceived service (Parasuraman et al., 1988). Therefore, service quality is a crucial aspect of fitness centers. According to Yildiz et al. (2018), retaining a customer is one of the most challenging points in the business. Therefore, the fitness center should understand customer needs.

Since fitness centers have become popular in Semarang, there was a lack of study assessing the effect of service quality on customer satisfaction (Fajlin, 2020); this research was carried out to complete the gap. In addition, this research also analyzed which components of service quality contribute more significantly to customer satisfaction.

To achieve these research objectives, the following research questions were proposed for this investigation:

- (1) What is the current level of service quality in fitness centers in Semarang, Indonesia?
- (2) Does service quality affect customer satisfaction in fitness centers in Semarang, Indonesia?

## **LITERATURE REVIEW**

### **Service Quality**

Recently, service quality has been a crucial key for the competitiveness and growth of a fitness center (Najafzadeh & Shiri, 2015). In order to understand service quality, here are some definitions that researchers have proposed. First, service quality is defined as the discrepancy between a customer's expected service and a customer's perceived service (Parasuraman et al., 1988). Similarly, Oliver (1997) explained that service quality compares expectations and perceptions of customers about the service company. Furthermore, it refers to how well the service delivered matches customer expectations (Lewis & Booms, 1983). Based on these definitions, experts have concluded that service quality is pointed to the difference or gap between a customer's expected service and a customer's perceived service.

Nowadays, the fitness center is growing swiftly and becoming more competitive (Teik, 2015). Yusof et al. (2018) argued that service quality significantly attracts customers. Moreover, Šima and Ruda (2019) stated that several researchers have indicated that it significantly affects customer trust and satisfaction.

### **Dimension of Service Quality**

Many researchers have developed service quality measurement tools. However, identifying the best service quality dimension is hard because every researcher has different models and theories. The following are service quality measurement tools that have been used in the fitness center recently, such as 1) SERVQUAL scale (five dimensions), Parasuraman et al. (1988); 2) Rust and Oliver scale (three dimensions), Rust and Oliver (1994); 3) QUESC scale (11 dimensions) of Kim and Kim (1995); 4) Brady and Cronin scale (three dimensions) from Brady and Cronin (2001); and 5) SQAS (six dimensions) of Lam et al. (2005).

SERVQUAL is the most used measurement (Maksimović et al., 2017; Šima & Ruda, 2019; Zardo et al., 2018) developed by Parasuraman et al. (1988). Based on this scale, service quality results are obtained by comparing consumer expectations and perceptions with five following dimensions: 1) Tangible; the tangible or physical dimension of service, e.g., physical facilities, equipment, and personnel appearance. 2) Reliability; the ability to perform the promised service dependably and accurately. 3) Responsiveness; willingness to help customers and to provide prompt service. 4) Assurance; Knowledge and courtesy of employees and their ability to inspire trust and confidence. 5) Empathy; caring, individualized attention the firm provides its customer.

Researchers who measured service quality in fitness center by using SERVQUAL scale still needed to adjust and modify it (Maksimović et al., 2017; Šima & Ruda, 2019; Zardo et al., 2018). For instance, the tangible dimension has been modified with SQAS that was developed by Lam et al. (2005). SQAS explicitly contains six dimensions: staff, program, locker room, physical facility, workout facility, and childcare. Four were added to the original SERVQUAL: workout facility, physical facility, program, and locker room.

### **Customer Satisfaction**

There are several definitions of customer satisfaction by experts. Customer satisfaction is defined as customers' reaction to circumstances fulfilling their expectations and needs regarding the product or service provided (Hallowell et al., 1996). Oliver (1997) stated that customer satisfaction is an overall feeling of happiness with a purchase transaction. Thus, when the customers feel that service consumption by the fitness center is not fulfilled, that is indicated as displeasure or a feeling of unhappiness (Oliver, 1997). So that, it is important to measure customer satisfaction in the fitness center to find out how satisfied the customers are.

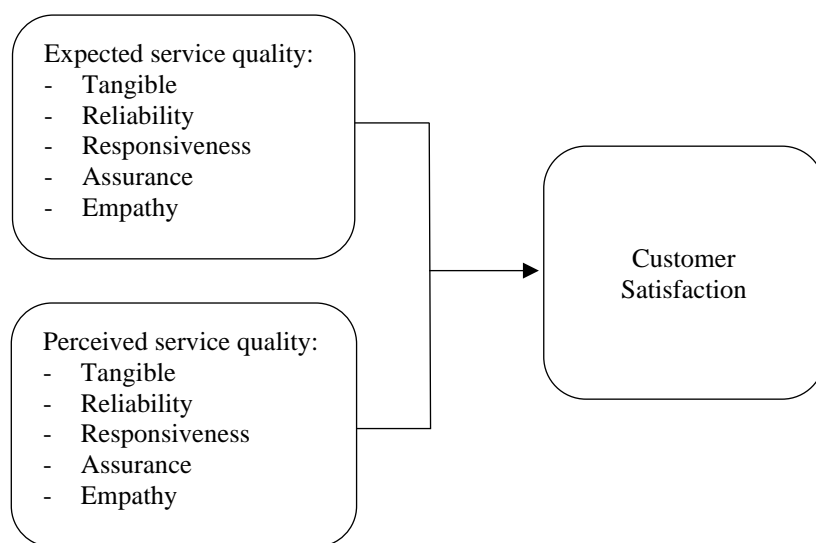
In the fitness center field, many researchers worldwide have been measuring customer satisfaction. Moreover, several researchers, e.g., Avourdiadou and Theodorakis (2014); Dias et al. (2019); Lim et al. (2016); and Najafzadeh and Shiri (2015), stated that customer satisfaction has a significant relationship with service quality. Moreover, it is crucial because satisfied customers turn into loyal customers and ensure profitability for the fitness center (Moreira & Silva, 2016).

### **Service Quality on Customer Satisfaction**

In marketing literature, the issue that attracted attention is the conceptualization between service quality and customer satisfaction (Tsitskari et al., 2014; Moreira & Silva, 2016; Dias et al., 2019). In this regard, numerous studies found that service quality directly affected customer satisfaction, which indicated a positive perception of service quality was attributed to a high level of satisfaction (Parasuraman et al., 1988; Nietos et al., 2015; Moreira & Silva, 2016). Furthermore, customers who are satisfied with the services respond positively to the economic and important situation by increasing product acquisition volume and attracting new customers (Fernández et al., 2018).

Customer satisfaction is relevant to psychological outcomes deriving from a particular service experience (Hallowell et al., 1996; Oliver, 1997). On the other hand, service quality is the gap between the service that customer expects and perceives, which indicates a positive or negative attitude towards

services. This case shows that the service business might control a whole service quality, but customer satisfaction is not under its control (Šíma & Ruda, 2019). In this case, Tsitskari et al. (2014) stated that the level of customer satisfaction depends not only on service quality but also on other variables, e.g., the customer’s mood, the climate, and the social group of customers culture, and others. Even though some studies found any direct influence between service quality and customer satisfaction, other researchers found that any direct influence cannot be fully confirmed (Haro-Gonzalez et al., 2017; Šíma & Ruda, 2019; Tsitskari et al., 2014). Based on the discussions, the researchers indicate two hypotheses: The current level of service quality is presented (Hypothesis 1), and the service quality affects customer satisfaction (Hypothesis 2). The conceptual framework of this study can be seen in Figure 1.



**Figure 1. Research Framework Model**

## RESEARCH METHODOLOGY

### Data Collection

The researchers used quantitative research in this study. Fourteen low-cost fitness centers were spreading across Semarang, Indonesia, to collect data. A total of 420 volunteer respondents participated in this study.

A set of questionnaires consisted of three parts such as demographic profile (10 items), service quality (a pair of expectation and perception, 29 items), and satisfaction (6 items). To measure the service quality in the fitness center, the researchers modified the SERVQUAL scale developed by Parasuraman et al. (1988) and SQAS proposed by Lam et al. (2005). It consisted of 5 dimensions: tangibles (9 items), reliability (5 items), responsiveness (6 items), assurance (4 items), and empathy (5 items). The researchers used the modified scale from Moreira and Silva (2016) on the satisfaction part. Their instrument is based on work by Oliver (1997). A five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree) was applied in this study.

To ensure the content validity of the instruments, the researchers proposed to 5 experts to check. The overall validity score was 0.842. All the questions in the questionnaire were evaluated by Item

Objective Congruence (IOC) with a range score -1 to +1. Every item with a yield of more than 0.6 was used. A pilot test has shown acceptable reliability with Cronbach's alpha of 0.818.

### Data Analysis

The data were analyzed using SPSS 22.0 version. Descriptive statistics and regression analysis were applied to examine the effect of service quality on customer satisfaction, and the significance level was set at  $P < 0.05$ .

## RESULTS AND DISCUSSION

### General Information of the Respondents

Descriptive findings illustrated that a total 420 respondents were participating in this research. The major respondents were between 19 and 29 years old (41.9%); 29.8% were aged between 30 and 39, 20.7% were aged between 40 and 49; 4% were aged between 50 and 60; 2.9% were aged below 19 and 0.7% were aged above 60. The data showed that 72.9% were male; 27.1 were female. Most of the participants have not taken personal class (57.1%); 18.8% have taken personal class 1 time; 12.4% have taken personal class more than 3 times; 7.4% have taken 2 times personal class; and 4.3% have taken personal class 3 times. The major respondents had graduated with a bachelor's degree (66.19%), 28.57% were graduated from senior high school and below; 4.76% were graduated from master's degree; and 0.48% were graduated from Doctoral degree.

Based on the income, 38.6% of respondents had monthly income between three million and five million; 36.7% had monthly income less than three million; 20.7% had monthly income between five million and ten million; and 4% had monthly income more than ten million. Most of the respondents were married (54.3%); 41.7% were single; 2.1% were widowed/widower; and 1.9% were divorced. By occupation, most of the participant were employees of private company (41.7%); 21.2% were entrepreneurs; 17.4% were students; 13.3% were government employees; and 6.4% had other occupations. The major participants visited fitness center more than 3 times a week (23.3%); 22.6% visited once a week; 21.4% visited twice a week; 19.3% visited 3 times a week; and 13.3% visited once a week.

The major purpose fitness center was to train for bodybuilding/weight training which consisted of 165 respondents (39.3%); 29.1% were to lose weight; 14.5% were to relieve stress; 9.5% were to socialize with friends, while 7.6% had other purposes. In the term of membership, most participants have been members between 1 and 2 years (23.8%); 6-12 months (16.2%); 3-5 years (14.8%); less than 6 months (14%); more than 5 years (8.8%) and not a member (22.4%).

**Table 1. Level of Service Quality**

Variable	Mean of Expectation	Standard Deviation	Mean of Perception	Standard Deviation	Service Quality	
	(E)		(P)		P-E	
Tangible	3.9312	0.47075	3.8054	0.47137	-0.1262	***
Reliability	3.8195	0.49116	3.8571	0.53904	0.0376	
Responsiveness	3.8825	0.51156	3.8982	0.54733	0.0157	
Assurance	3.9851	0.53981	4.0893	0.54571	0.1042	***
Empathy	3.7338	0.53774	3.7916	0.50422	0.0578	***
* = 90%, ** = 95%, *** = 99%						

As shown in Table 1, the mean of expected service quality of tangible dimension was 3.9312, and the mean of perceived service quality was 3.8054 while the gaps (P-E) were -0.1262. Reliability indicated that the average expected and perceived service quality and the gaps were 3.8195, 3.8571, and 0.2611, respectively. It was also clear that the responsiveness dimension has the average of expected and perceived service quality and gaps at 3.8825, 3.8982, and 0.1090, respectively. Another dimension called assurance had the average of expected service quality at 3.9851, perceived service quality at 4.0893, while the gaps were 0.1042. The last dimension, namely empathy, the average of expected and perceived service quality, as well as gaps, were 3.7338, 3.7916, and 0.0578, respectively.

In this case, tangible, assurance, and empathy dimensions were significantly different from zero with 99% confidence. On the other hand, even though the reliability and responsiveness dimensions have positive values, they were not significantly different from zero. On the other hand, the tangible dimension was the only one with negative quality (-0.1262).

Measuring service quality is greatly challenging for researchers because of its unique characteristics, which are completely different from measuring product quality which might be seen, touched, or appraised before buying (Maksimović et al., 2017; Fernández et al., 2018; Yusof et al., 2018; Dias et al., 2019). Based on the result, it was noticeable that four out of five dimensions of service quality perception had a higher value than service quality expectation, while tangible dimension had a lower value of service quality perceptions than expectation. Although improving service quality is one of the keys to gaining customer satisfaction, the fitness center manager should realize that every single dimension of service quality is equally essential (Moreira & Silva, 2015). In this case, the tangible dimension had a negative result. Even though all service quality dimensions are important, the result suggested that the fitness center should prioritize improvement in the tangible dimension. Service quality is present across low-cost fitness centers in Semarang.

**Table 2. Overall Satisfaction**

Variable	Mean	SD
1. Specific Services Provided (S1)	4.01	0.600
2. Right Decision (S2)	3.98	0.650
3. Revisit Intention (S3)	4.22	0.717
4. Overall Equipment (S4)	3.80	0.753
5. Personal Class (S5)	3.74	0.704
6. Overall Services (S6)	4.02	0.635
Overall Satisfaction (OS)	3.96	0.539

The results of descriptive analysis of each satisfaction dimension were shown in Table 2. Overall satisfaction average was 3.96. Furthermore, the results indicated that the mean of satisfaction 3 (M=4.22) was the highest among the variables. The following ranks were overall services, specific services, right decision, and overall equipment with having mean 4.02, 4.01, 3.98, and 3.80 respectively, while the lowest was personal class (M=3.74).

**Table 3. Regression Analysis**

<b>Dependent Variable</b>	<b>S1</b>	<b>S2</b>	<b>S3</b>	<b>S4</b>	<b>S5</b>	<b>S6</b>	<b>Overall Satisfaction</b>
Independent Variable							
Constant	3.954 ***	3.683 ***	3.862 ***	3.702 ***	3.723 ***	3.970 ***	3.816 ***
Tangible	0.220 ***	0.157 *	0.212 **	0.581 ***	0.260 ***	0.146 *	0.263 ***
Reliability	0.033	-0.008	-0.141	-0.033	0.154	-0.129	-0.020
Responsiveness	-0.169 **	-0.026	0.059	-0.191 *	-0.053	0.015	-0.061
Assurance	-0.027	0.031	0.005	-0.123	-0.094	-0.019	-0.037
Empathy	0.438 ***	0.278 ***	0.173 *	0.235 **	0.186 *	0.331 ***	0.273 ***
Personal Class	0.196	0.359 **	0.269 *	0.433 ***	0.331 **	0.152	0.289 **
Membership	0.029	0.325 ***	0.465 ***	0.136	-0.064	0.068	0.159 **
Personal Class * Membership	-0.129	-0.287 *	-0.271	-0.328 *	-0.143	-0.165	-0.220 *
R-Squared	0.160	0.148	0.129	0.163	0.098	0.085	0.169
Adjusted R-Squared	0.144	0.131	0.113	0.146	0.081	0.068	0.153
F test	9.796 ***	8.920 ***	7.641 ***	9.985 ***	5.593 ***	4.799 ***	10.458 ***
* = 90%; ** = 95%; *** = 99%							

Based on Table 3, the F-test for all models was significant. This indicated that all independent variables (tangible, reliability, responsiveness, assurance, empathy, personal class, membership, and interaction between personal class and membership) significantly affect customer satisfaction. Furthermore, based on the adjusted R-Squared, the study revealed that all independent variables contributed 15.3% to customer satisfaction.

#### **Model 1: The specific services provided (S1)**

The findings revealed that tangible (0.220) and empathy (0.438) dimensions positively affected S1 at 0.01 of the significance level. Furthermore, the results showed that if tangible and empathy increase 1 unit, the S1 will increase to 0.220 and 0.438, respectively. By contrast, responsiveness (-0.169) had a negative effect on S1 at 0.05 of significance level, which indicated that if responsiveness increases 1 unit, the S1 will decrease to 0.169 unit. Therefore, the fitness center should consider the responsiveness dimension in this case.

#### **Model 2: Right decision (S2)**

The results showed that empathy (0.278) and membership (0.325) were significant for S2 at 0.01 of significance level, while personal class (0.359) was significant at 0.05 of significance level. This indicated that if empathy, membership, and personal class increase 1 unit, the S2 will increase to 0.278, 0.325, 0.359 unit, respectively.

#### **Model 3: Revisit intention (S3)**

The tangible and membership had a positive  $\beta$  value at 0.212 and 0.465, which indicated that if tangible and membership increase 1 unit, the S3 will increase to 0.212 and 0.465 units, respectively.

#### **Model 4: Overall equipment (S4)**

Based on the findings, tangible, empathy, and personal class had a positive  $\beta$  value at 0.581, 0.235, and 0.433, which indicated that the S4 would increase to 0.581, 0.325, and 0.433 units, respectively if we raise them 1 unit.

#### **Model 5: Personal class (S5)**

The results showed that tangible (0.260) and personal class (0.331) positively affected S5. Furthermore, the findings indicated that if we increase tangible and personal class 1 unit, the S5 will increase to 0.260 and 0.331 units, respectively.

#### **Model 6: Overall services (S6)**

An independent variable had a positive effect on S6, namely empathy (0.331). The finding indicated that if empathy increases 1 unit, the S6 will increase to 0.331 unit.

#### **Model 7: Overall satisfaction**

The variables that significantly affected overall satisfaction were tangible, empathy, personal class, and membership at 0.01 0.05 and of the significance level. In this case, we could see that tangible and empathy dimension greatly had a positive significance because they have 99% confidence while personal class and membership have 95% confidence. The detailed explanation is as follows:

1. Tangible and empathy had a positive  $\beta$  value at 0.263 and 0.273, indicating that if tangible and empathy increase 1 unit, the overall satisfaction will increase to 0.263 and 0.273 units, respectively. Tangible and empathy are the keys to service quality, affecting overall satisfaction with 99% confidence.

2. Personal class and membership had a positive  $\beta$  value at 0.289 and 0.159, which showed that if personal class and membership increase 1 unit, the overall satisfaction will increase to 0.289 and 0.159 units, respectively. The findings indicated that the customers who took personal classes were more satisfied than those who did not. Moreover, the findings also revealed that customers who were members in low-cost fitness centers were happier than customers who were not members.

Based on the findings, some independent variables positively impacted overall satisfaction, such as tangible, empathy, personal class, and membership. In contrast, other variables did not positively affect overall satisfaction at 0.05 of the significance level. The study found that independent variables



could affect customer satisfaction, even though it was low. The level of customer satisfaction depends not only on service quality but also on other variables such as the customer's mood, climate, culture, social group of customers, and others (Tsitskari et al., 2014). In this case, Haro-González et al. (2017) suggested that developing a marketing strategy is an essential way to increase the positive satisfaction from service quality in the fitness center, such as improving in schedules and punctuality of services, developing the staff public relation training, and updates of fitness center's activities.

## CONCLUSION

Measuring service quality is truly challenging for researchers because of its unique characteristics (Maksimović et al., 2017; Fernández et al., 2018; Yusof et al., 2018). The findings showed that four dimensions, namely reliability, responsiveness, assurance, and empathy, met customer expectations. The empathy and assurance dimension indicated that they have greatly met customer expectations. By contrast, the tangible dimension is the only one that did not meet customer expectations. Therefore, Yusof et al. (2018) argued that fitness centers should provide services beyond customers' expectations. Based on the results, fitness center managers should more take care of the tangible dimension such as in the temperature and lighting, cleanliness of workout facility, physical facility, and locker room, direction for using the equipment, visually appealing in physical facilities and equipment, and neatness of staff appearance to meet customer expectations.

Moreover, responsiveness is the only variable that has a negative effect on S1 (specific services provided). This reveals that we should consider providing the responsiveness dimension because the higher the responsiveness dimension, the higher the dissatisfied customers on S1. Based on the overall satisfaction, the findings show a positive relationship between service quality and customer satisfaction. Tangible dimension, empathy dimension, membership, and personal class are the variables that positively correlate to overall satisfaction. This is indicated that four of these variables play prominent roles in driving customer satisfaction in the fitness center in Semarang. To improve customer satisfaction, fitness centers in Semarang should emphasize increasing tangible dimension, empathy dimension, membership, and personal class because they positively affect customer satisfaction. The higher we give these variables, the higher we will positively impact customer satisfaction.

This study was conducted in the fitness center sector in Semarang, Indonesia. The narrow scope of coverage limits the authenticity of the results to be generalized to other sectors. In addition, this study has several limitations that could be explored further. The study was limited to Semarang city, which can be compared to other big cities in Indonesia such as Yogyakarta, Surabaya, Bandung. Moreover, the study was conducted by quantitative approach only. Meanwhile, both quantitative and qualitative may be used in future studies.

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**Article correspondence should be sent to:**

Suyatman

Department of Sports Management, Faculty of Sports Science, Chulalongkorn University, Thailand  
(yatmank36@gmail.com)

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