Research in Dance and Physical Activity https://doi.org/10.26584/RDPA.2022.04.6.1.33
2022. Vol. 6, No. 1, 33-48

The Effect of Service Quality on Consumer Satisfaction and Loyalty Depending on Consumption Motivations in the Context of Fitness Centers

Manmin Kim[1]
Pukyoung National University, Republic of Korea, Ph. D. Candidate
Huang Yihan[2]
Pukyoung National University, Republic of Korea, Research Professor
Yunkyung Jeon[3]
Pukyoung National University, Republic of Korea, Ph. D. Candidate
Daehwan Kim[4*]
Pukyoung National University, Republic of Korea, Professor

Abstract

The purpose of this study was to explore the effect of service quality on consumer satisfaction and loyalty and to examine the moderating effect of consumption motivations in the relationship between service quality and consumer satisfaction in the context of fitness centers. The present study targeted 648 fitness center goers in the city of Busan and the province of Gyeongnam in South Korea, and 606 cases were employed in the final analysis. To test the research hypotheses, the authors conducted descriptive a statistical analysis, confirmatory factor analysis, and latent moderated structural equation modeling. The results showed that overall service quality positively influenced consumer satisfaction, which enhanced consumer loyalty. Additionally, social motivation was found to positively moderate the relationship between service quality and consumer satisfaction, whereas psychological change motivation was found to negatively moderate the relationship. Fitness center managers should enhance diverse service quality components in order to satisfy their consumers, and they should develop strategies for service quality perceptions targeting a high-level group of social motivation and low-level group of psychological change motivation.

Keywords: fitness center, service quality, satisfaction, loyalty, consumption motivations

* Corresponding author
Email address: dk@pknu.ac.kr

Introduction

A healthy lifestyle has gained significant public attention due to increases in income, decreases in working hours, and the expansion of leisure time (Choi, 2020). Pursuing a healthy lifestyle leads to an increased demand of physical activities, thereby boosting the number of sport fitness centers (Ministry of Culture, Sports and Tourism, 2020). However, an excessive supply of sport fitness centers gives rise to fierce competition, which in turn causes a decrease in profit for these centers (Jeon, 2021). To solve this issue, managers of sport fitness centers should provide their customers with high-quality services, thereby satisfying customers' needs and wants and ensuring their continued loyalty (Heo & Son, 2020).

Service quality is defined as consumers' overall evaluation or attitude toward service by comparing its actual performance to expected quality (Grönroos, 1984). In line with this notion, Parasuraman et al. (1985) conceptualized service quality as consumers' subjective assessment of service by comparing actual service to expected service, and they then developed a multi-item scale (SERVQUAL) to objectively measure service quality. This scale consisted of 10 sub-dimensions—credibility, responsiveness, competency, tangibility, accessibility, courtesy, communication, reliability, security, and understanding—that were subsequently narrowed down by Zeithaml et al. (1988) to five: reliability, empathy, responsiveness, tangibility, and assurance.

The concept of service quality was considered one of the most important factors in the operational strategies of fitness centers (Kim, 2016). Specifically, Kim (2017) reported that the service quality of sport fitness centers has a positive impact on consumers' flow experiences and satisfaction, thus enhancing consumer loyalty. Meanwhile, Lee et al. (2020) tested the effects of sub-dimensions of service quality on revisit-intention, recommendation intention, and positive word-of-mouth, and they reported that delivery quality, environmental quality, and social quality positively affected consumer loyalty in the context of fitness centers. Taken together, high-quality service enhances consumer satisfaction, which leads to consumer loyalty and retention, thereby increasing fitness center revenue (Heo & Son, 2020).

Consumer satisfaction refers to consumers' positive evaluations when they obtain more value than they expected (Parasuraman et al., 1985), and the same notion applies to the context of fitness centers (Lee & Hwang, 2021). The common goal of diverse businesses is to maximize satisfaction of their targeted consumers by meeting consumers' needs and wants, as doing so is the most important factor in determining consumer loyalty, which ensures business sustainability (Grönroos, 1984).

In general, consumer loyalty is defined as a high level of commitment to a preferred product/service by repurchasing or reusing it (Oliver, 1997). The concept of consumer loyalty has garnered much attention since it is more efficient to manage existing consumers than entice new ones and thus is highly related to long-term profit (Rust & Oliver, 1993). According to Reichheld and Sasser (1990),

the cost required to entice new customers is five times higher than the one required to maintain existing customers, and an increase of 5% in consumer loyalty leads to an increase of 20−85% in profits depending on the type of business. In this regard, to be profitable, it fitness centers must provide their consumers with differentiated service quality in order to enhance consumer satisfaction and loyalty.

The existing literature has conceptualized consumer loyalty as repurchase behavior, but such conceptualization has a limitation in capturing holistic consumer loyalty. Aaker (1991) insisted that loyal customers do not easily switch to other services and that they play a pivotal role in securing new customers via positive recommendation and word-of-mouth. Based on this viewpoint, a bulk of the research has conceptualized consumer loyalty as described above (e.g., Cho & Yoon, 2014; Kim, Han, Huang, & Kim, 2021; Kim, Kim, Huang, & Kim, 2020), and thus the current study operationalized consumer loyalty as the intention of repurchase, recommendation, and word-of-mouth.

Meanwhile, previous studies tended to consider consumers as a homogeneous group rather than heterogeneous groups with a wide range of consumption motivations in exploring the effect of service quality on consumer satisfaction and loyalty. They resultingly have a limitation in pinpointing different patterns of consumer behavior depending on consumer characteristics. In order to efficiently enhance satisfaction and loyalty through offering high-quality service, it is essential to understand the effect of service quality on consumer behavior depending on consumer characteristics. In the field of sports management, researchers have focused on demographic factors (Kim, Kim, & Moon, 2004; Lee & Jeong, 2007; Lee, Lee, & Jeong, 2009), lifestyle (Kim & Kang, 2007; Kim & Lee, 2009), involvement (Jeon & Lim, 2017; Jeon et al, 2021; Kim, 2019), and consumption motivations (Jeong, Kim, & Lee, 2017), but the latter has been paid relatively little attention compared to the other three.

Motivation is a psychological state that leads to an individual's goal-directed behaviors (Caro & García, 2007). Specifically, it is a source of power that urges a person to act in a certain direction and is provoked by his or her needs (Yoo, 1992). Accordingly, understanding why an individual registers with a certain fitness center provides meaningful insight into developing efficient and effective strategies to enhance consumer loyalty because sport participation is determined by diverse motivations. The extant literature suggests that equivalent service can be differently perceived depending on consumption motivations, thereby generating different patterns of consumer satisfaction and loyalty (Bae, Lee, & Lee, 2019). This implies that consumer satisfaction and repurchase intentions fluctuate depending on consumption motivations, as the criteria of assessment for certain services can be differently utilized depending on such consumption motivations (Lee, Park, & Park, 2021). Therefore, it is necessary to investigate the effect of service quality on consumer behaviors depending on consumption motivations.

In the context of fitness centers, consumption motivations can be categorized into educational, physical, ostentation, social, hedonic, and psychological change motivations (Park, Kim, & Lim, 2018;

Yang, 2000). Firstly, educational motivation refers to the motivation to learn specific athletic skills (Lee & Kim, 2019; Park, Bae, & Lee, 2020; Seo, 2020) and was operationalized as motivation to learn athletic skills, movements, and postures in the current study. Physical motivation is defined as motivation to register with a fitness center for health and physical fitness (Park, Kim, & Lim, 2018), and it is distinguished from educational motivation in that it can be fulfilled without instruction from trainers. Meanwhile, ostentation motivation is the motivation to register with a fitness center for a well-shaped body (Lee, 2021) and, in the present study, was operationalized as the degree of motivation to register with a fitness center to achieve positive assessment by others in regards to one's body and physical functions. Social motivation refers to the motivation to register with a fitness center in order to interact with others through sport participations, and this has been adopted from previous studies as one of the main motivations for physical activities (Hwang & Lee, 2018). Next, hedonic motivation entails individuals joining a fitness center to participate in physical activities for intrinsic rewards, such as enjoyment of an activity itself (Ko, 2011). Lastly, psychological change motivation refers to motivation to visit a fitness center for stress reduction (Kim & Lee, 2016). Taken together, it can be concluded that consumers register at fitness centers based on a wide range of consumption motivations, meaning consumers are likely to show different patterns of consumption behaviors depending on these motivations that modulate their evaluative focus.

Based on this background, the purpose of the present study was to examine the effect of service quality on consumer satisfaction and loyalty depending on consumption motivations in the context of fitness centers. By doing so, the present study not only contributes to the extant literature by filling certain research gaps, but it also provides meaningful information for developing effective strategies to manage fitness centers. For the purpose of the present study, specific hypotheses were developed and tested as follows.

H1: Service quality of fitness centers positively influences consumer satisfaction.

H2: Consumer satisfaction positively influences consumer loyalty.

H3: Educational motivation moderates the effect of service quality on consumer satisfaction.

H4: Physical motivation moderates the effect of service quality on consumer satisfaction.

H5: Ostentation motivation moderates the effect of service quality on consumer satisfaction.

H6: Social motivation moderates the effect of service quality on consumer satisfaction.

H7: Psychological change motivation moderates the effect of service quality on consumer satisfaction.

H8: Hedonic motivation moderates the effect of service quality on consumer satisfaction.

Methods

Research Participants

The present study targeted fitness center consumers in the city of Busan and province of Gyeongnam in South Korea as a research population, and 648 online and offline surveys were distributed via a sampling method. After deleting 42 cases with incomplete responses, 606 cases were included in the final analysis. The information about the research participants is summarized in Table 1.

Table 1. General Characteristics of Research Participants

Variable		N	%
Gender	Male	361	59.6
	Female	245	40.4
	sum	606	100.0
Age	20-29 Years	163	26.9
	30-39 Years	267	44.1
	40-49 Years	112	18.5
	50 or More	64	10.5
	sum	606	100.0
Occupation	Student	119	19.6
	Officer	139	22.9
	Government	87	14.4
	Private	81	13.4
	Professional	132	21.8
	Others	48	7.9
	sum	606	100.0
Weekly Usage	Once a week	76	12.5
	Twice a week	55	9.1
	3 times a week	184	30.4
	4 times a week	75	12.4
	5 or more times a week	216	35.6
	sum	606	100.0
Member Type	1 month membership	79	13.0
	3 months membership	84	13.9
	Half-year membership	114	18.8
	1 year membership	329	54.3
	sum	606	100.0
Total		606	100.0

Measures

All of the variables in the research model were measured with multiple items adopted from the previous studies, and the measurement items were revised to fit the context of the present study. These items measured each of their target variables using a seven-point Likert scale anchored from one (not at all) to seven (very much). The survey questionnaire consisted of demographic variables, service quality, consumer satisfaction, consumer loyalty, and consumption motivations.

The demographic variables included gender, age, marital status, education, occupation, income, type of fitness center membership, and the number of usages. The authors measured service quality with 25 items, which were adopted from the existing literature (Cheon, 2013; Lee, 2016; Parasurama, Zeithaml, & Berry, 1988). Consumer satisfaction was measured using five items adopted from Manot and Oliver (1993) and Ra and Lee (2015). The authors measured six items adopted from Johnes et al. (2000) for cognitive loyalty and Oliver (1999) and Lim (2015) for behavioral loyalty. Consumption motivations were measured with 18 items adopted from Park, Kim, and Lim (2018) for educational, physical, ostentation, social, and psychological change motivations and Yang (2000) for hedonic motivation. All of the measurement items are shown in Table 2.

Table 2. Measures, factor loadings, reliability coefficients, and average variance extracted.

Factors and items	λ	C.R.	AVE
Service Quality		**.83**	**.50**
(Tangibility)The spatial environment of the fitness center is excellent.	.84	.89	.62
(Tangibility)The cleanliness of the fitness center is excellent.	.79		
(Tangibility)Employees of the fitness center are well dressed.	.78		
(Tangibility)The fitness center provides me with up-to-date equipment.	.74		
(Tangibility)The subsidiary facilities of the fitness center are excellent.	.78		
(Reliability)The fitness center provides service on the agreed time.	.85	.93	.72
(Reliability)The fitness center solves problems with services very well.	.83		
(Reliability)The fitness center operates a clear membership system.	.79		
(Reliability)The fitness center provides me with the promised program.	.86		
(Reliability)The fitness center does not make mistakes in its services.	.91		
(Responsiveness)The fitness center immediately responds to customer needs.	.84	.90	.63
(Responsiveness)Employees of the fitness center respond kindly to customers.	.83		
(Responsiveness)The fitness center provides prompt service to customers.	.77		
(Responsiveness)Employees of the sport fitness center are active to help me.	.75		
(Responsiveness)Employees provide services that I need.	.79		
(Assurance)The fitness center gives me sense of assurance in its service.	.82	.85	.54
(Assurance)The fitness center has the expertise to answer my questions.	.70		

Factors and items	λ	C.R.	AVE
(Assurance)Instructors at the sport fitness center have the skills and expertise.	.67		
(Assurance)There is no risk of monetary transaction at the fitness center.	.74		
(Assurance)Employees of the fitness center are polite.	.73		
(Empathy) Employees of the fitness center pay attention to each of customers.	.84	.90	.64
(Empathy) The fitness center sincerely care customers' benefits.	.79		
(Empathy)The fitness center exactly knows customers' needs and wants.	.77		
(Empathy)The fitness center specify convenient schedule for customers.	.76		
(Empathy)The fitness center listens to the opinions of customers well.	.83		
Consumer Satisfaction		**.91**	**.66**
Overall, I am satisfied with the fitness center.	.86		
I like the fitness center.	.82		
I am satisfied with the exercise facilities of the fitness center.	.82		
I am satisfied with the service that the fitness center provides.	.78		
The fitness center outperforms my expectation.	.79		
Consumer Loyalty		**.91**	**.63**
I will continue to use the current fitness center.	.82		
I am likely to use the fitness center than other fitness centers.	.82		
I will continue to use the fitness center even if the price goes up.	.74		
I will recommend the fitness center to other people.	.81		
I will say positive things about this fitness center to other people.	.81		
I will promote the benefit of the fitness center to the people around me.	.77		
Educational Motivation		**.89**	**.74**
I registered the fitness center to improve my exercise skills.	.87		
I registered the fitness center to learn correct movements.	.87		
I registered the fitness center to maintain good posture.	.83		
Physical Motivation		**.92**	**.78**
I registered the fitness center for my health.	.89		
I registered the fitness center to build up my physical strength.	.90		
I registered the fitness center for physical activities.	.86		
Ostentation Motivation		**.91**	**.78**
I registered the fitness center because I want to have a well-shaped body	.85		
I registered the fitness center because I want to wear nice clothes.	.93		
I registered the fitness center to be good at sports.	.88		
Social Motivation		**.90**	**.75**
I registered the fitness center to interact with others easily.	.82		
I registered the fitness center to hang out with other people.	.90		
I registered the fitness center to have a good time with other people.	.89		

Factors and items	λ	C.R.	AVE
Psychological Change Motivation		**.92**	**.78**
I registered the fitness center to forget the complexities of my daily life.	.89		
I registered the fitness center to overcome my monotonous life.	.91		
I registered the fitness center to escape from my daily life.	.85		
Hedonic Motivation		**.92**	**.79**
I registered the fitness center for my enjoyment.	.87		
I registered the sport because I like sports (exercise) itself.	.93		
I registered the fitness center because I feel curious and want to try sports.	.87		

Note: C.R. = Composite Reliability; AVE = Average Variance Extracted Value

Data Analysis

The present study excluded incomplete responses and outliers in the data analysis. The authors conducted a descriptive statistics analysis to review the patterns of the variables in the research model using SPSS 26.0. After that, a confirmatory factor analysis (CFA) was performed using Mplus 8 to validate the measurement model. Finally, the authors tested the hypotheses with a latent moderated structural equations (LMS) analysis using Mplus 8. For the evaluation of the research model, including interaction terms between latent factors, the current study adopted the two-step approach suggested by Klein and Moosbrugger (2000).

Specifically, a structural model without interaction terms was estimated and evaluated through conventional fit criteria in the first step. This model is referred to as model 0. If model 0 met the conventional fit criteria, another model (model 1) with interaction terms was estimated and evaluated through a log-likelihood ratio test (Klein & Moosbrugger, 2000; Maslowsky, Jager, & Hemken, 2015) in the second step. If model 1 was statistically superior to model 0, path coefficients of model 1 could be used for hypothesis testing.

Results

The authors performed a Kolmogorov-Smirnov test to examine the normality of the research variables. Since the normality assumption of the variables was violated, the authors estimated the measurement model and structural model (model 0) using Satorra and Bentler's (1994) scaling method. The results of a CFA showed an acceptable fit between the specified measurement model and the data: S-Bχ^2 /*df* = 3512.81/1336 = 2.63, CFI = 0.91, RMSEA = 0.04, and SRMR = 0.04 (Hair et al., 2006). All measurement items were found to be significantly loaded on their theorized constructs, and their factor loadings were greater than 0.60. The average variance-extracted (AVE) values ranged

from 0.50 (service quality) to 0.80 (hedonic motivation). The squared correlations between latent constructs in the research model were found to be smaller than all AVE values (see Tables 2 and 3). Moreover, all composite reliability coefficients of the latent variables were found to be greater than 0.80. Based on these results, the authors concluded that the measurement model secured reliability as well as convergent and discriminant validity (Fornell & Larcker, 1981; Hair et al., 2006).

Table 3. Results of Correlation Analysis

	1	2	3	4	5	6	7	8	9
1. SQ	1								
2. CS	.67***	1							
3. LY	.30***	.34***	1						
4. EM	.14**	.18***	.28***	1					
5. PM	.15**	.13**	.53***	.59***	1				
6. OM	.17**	.16**	.32***	.62***	.63***	1			
7. SM	.00	.07	.26***	.27***	.28***	.59***	1		
8. PCM	.16**	.11**	.19***	.54***	.49***	.52***	.24***	1	
9. HM	.15**	.18***	.12**	.27***	.23***	.25***	.06	.21***	1

* $p<.05$, ** $p<.01$, *** $p<.001$

Note: SQ=service quality, CS=consumer satisfaction, LY=consumer loyalty, EM=educational motivation, PM=physical motivation, OM=ostentation motivation, SM=social motivation, PCM=psychological change motivation, HM=hedonic motivation

For the hypothesis testing, the authors estimated a structural model (model 0) without latent interaction terms (service quality*educational motivation, service quality*physical motivation, service quality*ostentation motivation, service quality*social motivation, service quality*psychological change motivation, and service quality*hedonic motivation) in the first step. The results showed an acceptable fit between the structural model and the data : S-Bχ^2 /*df* = 3677.99/1343 = 2.74, CFI = 0.90, RMSEA = 0.06, SRMR = 0.06, log-likelihood value = 43461.79 (Hair et al., 2006). Therefore, the authors estimated another structural model (model 1) with the latent interaction terms and then conducted log-likelihood ratio test in the second step. The result of the log-likelihood ratio test indicated that model 1 is statistically superior to model 0: D=2[|-43461.80|-|-43445.70|] = 16.06 △df=6). Accordingly, model 1 was adopted, and its coefficients were used for the hypothesis testing.

The results showed that service quality had a positive impact on consumer satisfaction ($\beta = 0.61$, $p < 0.001$) and that consumer satisfaction positively influenced consumer loyalty ($\beta = 0.34$, $p < 0.001$). Thus, H1 and H2 were supported. Regarding the moderating effects of consumption motivations, the results indicated that the moderating effect of educational motivation on the relationship between

service quality and consumer satisfaction was not statistically significant (β = -0.02, p > 0.05). For this reason, H3 was not supported. The moderating effect of physical motivation on the relationship between service quality and consumer satisfaction was also not statistically significant (β = -0.11, p > 0.05), and thus H4 was not supported. Additionally, the moderating effect of ostentation motivation on the relationship between service quality and consumer satisfaction was not statistically significant (β = -0.06, p > 0.05). Therefore, H5 was not tenable. On the other hand, the moderating effect of social motivation (β = 0.23, p < 0.001) and psychological change motivation (β = -0.20, p < 0.001) were found to be statistically significant. Accordingly, H6 and H7 were tenable. Finally, the results showed that hedonic motivation did not have a significant moderating effect on the relationship between service quality and consumer satisfaction (β = -0.01, p > 0.05). Thus, H8 was not supported. The results of hypothesis testing are summarized in Table 4 and visualized in Figure 1.

Table 4. The results of the hypothesis testing

Hypothesis	Est.	S.E.	p	Results
H1: SQ → CS	.61	.04	p<.001	Adopt
H2: CS → LY	.34	.06	p<.001	Adopt
H3: SQ×EM → CS	.02	.07	p>.05	Reject
H4: SQ×PM→ CS	-.11	.07	p>.05	Reject
H5: SQ×OM→ CS	-.06	.06	p>.05	Reject
H6: SQ×SM→ CS	.22	.05	p<.001	Adopt
H7: SQ×PCM→ CS	-.20	.06	p<.001	Adopt
H8: SQ×HM→ CS	.01	.04	p>.05	Reject

Note: SQ=service quality, CS=consumer satisfaction, LY=consumer loyalty, EM=educational motivation, PM=physical motivation, OM=ostentation motivation, SM=social motivation, PCM=psychological change motivation, HM=hedonic motivation

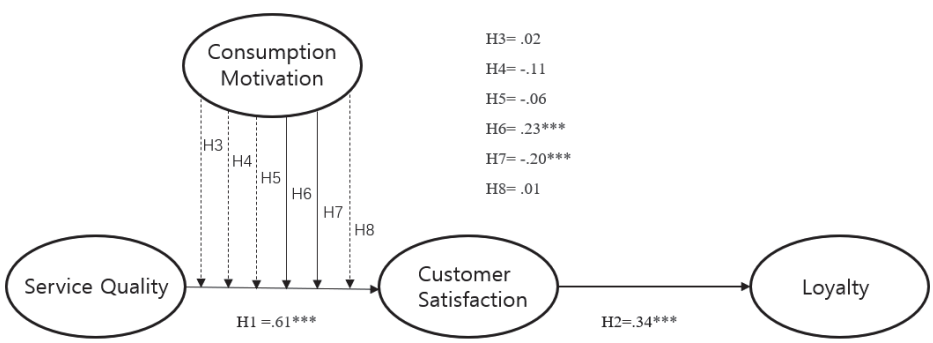

Figure 1. Summary of the Results; ***p< .001

Discussion

The present study tested the structural relationships between service quality, consumer satisfaction, loyalty, and the moderating effect of consumption motivations on the relationship between service quality and consumer satisfaction in the context of fitness centers. First of all, service quality had a positive effect on consumer satisfaction (H1). This implies that the higher consumers perceive reliability, empathy, responsiveness, tangibility, and assurance of service in their fitness centers, the more they are satisfied with said fitness centers. This result is consistent with previous research reporting that the service quality of fitness centers is a determinant of consumer satisfaction (Kim, 2018; Yoon, 2019).

Next, the results presented that consumer satisfaction positively influences consumer loyalty (H2). This result supports a bulk of research revealing that the more consumers are satisfied, the more they engage in repurchase, recommendation, and positive word-of-mouth behaviors (Bae, 2019). The ultimate goal of operational strategies for fitness centers is to enhance consumer loyalty because consumers' repurchase behavior and promotion through positive word-of-mouth directly leads to increased revenue. Therefore, the results of H1 and H2 imply that fitness center managers should develop strategies to enhance the quality of diverse service domains, thereby boosting consumer satisfaction, which is one of the most powerful determinants of consumer loyalty.

Additionally, the current study tested the moderating roles of consumption motivations, including educational, physical, ostentation, social, psychological change, and hedonic motivation, in the relationship between service quality and consumer satisfaction. The results showed that educational, physical, ostentation, and hedonic motivation did not moderate the effect of service quality on consumer satisfaction (H3, H4, H5, and H8). This implies that overall service quality is equivalently important for consumers to evaluate fitness centers regardless of such motivations. In contrast, social and psychological change motivations were found to modulate the impact of service quality on consumer satisfaction (H6 and H7). Specifically, social motivation positively moderated the direct effect of service quality on consumer satisfaction, and psychological change motivation negatively moderated the effect. These results can be interpreted to indicate that the higher (lower) the level of social (psychological change) motivation is, the more the effect service quality on consumer satisfaction increases. That is, consumers who register with a fitness center to interact with other people tend to be more sensitive to the overall service quality of the fitness center, while consumers who register with a fitness center to escape from their daily life tend to be less sensitive to service quality.

Therefore, managers of fitness centers should pay more attention to the segmentation of their customers regarding social and psychological change motivation. Also, they should focus on particular service quality factors that are significant to different customer motivations to maximize the

effectiveness of their investments in customer experience strategies. Furthermore, managers should make meaningful efforts to provide high-quality service to consumers who have a high level of social motivation and low level of psychological change motivation. In so doing, managers must first identify the motivational orientation of customers. One effective way to identify motives is to create a short questionnaire, and then, for the customers who have high social motivation, offer sports and fitness programs or events that provide interaction with other customers.

The present study contributes to the extant literature, which usually considers consumers as a homogenous group, by elucidating how service quality influences consumer satisfaction depending on the level of each consumption motivation. For a practical implication, the present study verifies that diverse domains of service quality are powerful factors in enhancing consumer satisfaction, through which fitness centers can improve consumer loyalty. Particularly, such an implication is more evident for consumers with a high level of social motivation and low level of psychological change motivation, and thus managers should develop strategies for these consumer groups to change their perception of service quality in the context of fitness centers. For example, when we experienced isolation and disconnection due to COVID-19, it was necessary to integrate one's services on a communication platform such as Youtube (Kim, Roh, & Yoon, 2021). If a communication platform is provided to a consumer group with strong social motivation, it can have a successful marketing effect.

Despite the theoretical and practical implications that the present study suggests, several limitations should be discussed to offer insight into future research. First, although the current study develops the research model by considering consumers as heterogeneous groups based on consumption motivations, following research needs to consider other psychological factors that can categorize consumers. Such research not only provides meaning insight into consumers' decision making depending on their characteristics, but it also helps develop more diverse and practical strategies for high-quality service in the context of fitness centers. Second, the present study focused on the structural relationship between service quality, consumer satisfaction, and loyalty, but future research should investigate diverse attributes of fitness centers that enhance consumer satisfaction and loyalty. For example, the servicescape (physical environment) and service toping (peripheral service) deserve attention as enhancers of consumer experiences in the sport fitness industry. Therefore, future research should investigate how such factors enhance consumer satisfaction and loyalty in the context of fitness centers to offer theoretical and practical implications to the sport fitness industry.

References

Aaker, D. A. (1991). *Brand equity. La gestione del valore della marca*, 347-356.

Bae, J. H., Lee, S. H., Lee, J. M., & Kim, S. M. (2019). Effect of place attachment to mountain village tourist destinations on visit satisfaction and behavioral intentions-Focused on Hoechon Village in Wonju. *Hotel and Resort Research, 18* (4), 245-264.

Cheon, P. K. (2013). *A study on service quality from the perspective of customer satisfaction and repurchase intention*. Unpublished Doctoral Thesis Yongin University Graduate School.

Cho, H. J., & Seon-Jeong Yoon. (2014). The effect of value perception of airline frequent flyer program on customer loyalty: Focusing on the verification of differences in customer characteristics according to mileage. *Tourism Research Journal, 28*(7), 167-179.

Choi, S. M. (2020). Analysis of participation in leisure activities and satisfaction according to actual working hours-Focused on data from the 2019 National Leisure Activity Survey. *Journal of Tourism Research, 32*(2), 167-183.

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics.

Grorонroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing, 18*(4), 36-44.

Hair, E., Halle, T., Terry-Humen, E., Lavelle, B., & Calkins, J. (2006). Children's school readiness in the ECLS-K: Predictions to academic, health, and social outcomes in first grade. *Early Childhood Research Quarterly, 21*(4), 431-454.

Heo, J. & Son, W. H (2020). The effect of service authenticity of sports center leaders perceived by consumers on service quality, customer satisfaction, customer trust and loyalty. *Journal of the Korean Physical Science Association, 29*(4), 567-578.

Hwang, I. sun., & Lee, S. I. (2021). The effect of fairness perception of sports center on emotional response, recovery satisfaction and reuse intention. *Journal of the Korean Physical Science Association, 30*(5), 621-637.

Hwang, J. H., & Lee, Y. J. (2018). The relationship between participation motive, exercise emotion, and addiction of life sports swimmers. *Journal of the Korean Physical Science Association, 27*(4), 93-105.

Lim, W. H. (2015). *The effect of the personal service factors of the sports center personal trainer on the emotions and loyalty of consumers*. Unpublished doctoral thesis. Kyunghee University Graduate School of Physical Education.

Jeon, C. S., & Im, K. T. (2017). Structural relationship analysis between familiarity with sports brands, brand attitudes, and purchase intentions: Focusing on the moderating effect of sports involvement. *Journal of the Korean Society for Social and Physical Education, 70*, 195-204.

Jeon, Y. K. (2021). *The effect of sports center service landscape on emotional experience, spatial immersion, satisfaction, and loyalty: Focusing on the moderating effect of knowledge motivation*, Unpublished master's thesis, Pukyong National University Graduate School.

Jeon, Y. K., Kim, D. W., Han, S. J., Huang, Y. H., & Kim, J. J. (2021). How Does Service Environment Enhance Consumer Loyalty in the Sport Fitness Industry? The Role of Servicescape, Cosumption Motivation, Emotional and Flow Experiences. *Sustainability, 13*(11), 6414.

Jeong, S. H., Kim, S. Y., & Lee, J. H. (2017). Market segmentation strategy according to the characteristics, selection attributes, and symbolic consumption propensity of sporting goods consumers. *Korean Journal of Sports Industry Management, 22*(4), 1-18.

Jones, Q., & Rafaeli, S. (2000). Time to split, virtually:'Discourse architecture'and'community building'create vibrant virtual publics. *Electronic Markets, 10*(4), 214-223.

Jung, Y. G. (1998). Exploratory factor analysis of motivation to participate in sports. *Journal of the Korean Sports Psychology Association, 9*(1), 113-131.

Kim, D. H. (2019). A study on the effect of presence and social desire satisfaction on viewing satisfaction in virtual reality sports viewing. *Journal of the Korean Physical Education Association, 58*(1), 159-171.

Kim, J. E., Roh, M. R., & Yoon, P. K. (2021). The Elderly's partcipation in exercise and its meanings in the daily life of covid-19 pandemic. *Journal of the Korean Research in Dance and Physical Education, 2*, 73-86.

Kim, J. H., & Lee, J. H. (2009). Market segmentation by lifestyle type of e-sports spectators. *Journal of the Korean Physical Education Association, 48*(3), 275-288.

Kim, J. T. (2011). The effect of sports center service quality and customer satisfaction on customer loyalty. *Journal of the Korean Physical Science Association, 20*(3), 429-440.

Kim, J. W., & Lee, J. H. (2016). The effect of social support and self-management of college students participating in sports activities on coping with stress and maturation of career consciousness. *Journal of the Korean Physical Science Association, 25*(5), 117-132.

Kim, K. T., & Kang, J. H. (2007). Market segmentation strategy of Jeju United Football Team according to the lifestyles of local residents. *Sports Science Research, 18*(2), 22-31.

Kim, M. J. (2018). *The relationship between service quality, customer satisfaction and behavior for the elderly users of sports centers*. Unpublished doctoral thesis Soonchunhyang University Graduate School.

Kim, M. M. (2016). *The effect of physical environment and human service of personal training center on customer satisfaction*. Unpublished master's thesis. Pukyong National University graduate school.

Kim, S. H., Kim, J. B., & Moon, S. H. (2004). Segmentation of the Korean golf club market. *Journal of the Korean Society for Social and Physical Education, 21*, 275-290.

Kim, W. K. (2017). The effect of fitness center service quality, customer satisfaction, and exercise commitment on customer loyalty: gender multi-group analysis. *Journal of the Korean Sports Association, 15*(4), 195-208.

Klein, A., & Moosbrugger, H. (2000). Maximum likelihood estimation of latent interaction effects with the LMS method. *Psychometrika, 65*(4), 457-474.

Ko, J. S. (2011). Intrinsic and Extrinsic Motivation of Amateur Golfers. *Korean Journal of Sport Psychology, 22*(1), 51-64.

Lee, J. H., & Jeong, S. H. (2007). Market segmentation according to spectator's spectator's spectators and future consumption behavior. *Journal of the Korean Physical Education Association, 46*(5), 365-376.

Lee, J. H., Lee, M. S., & Jeong, S. H. (2009). Lifestyle and participation motive analysis through segmentation of golf participation characteristics. *Korean Journal of Sports Industry Management, 14*(4), 171-186.

Lee, K. Y., Park, S. J. & Shin, T. Y. (2015). The effect of service quality of public sports center on customer satisfaction and revisit intention. *Journal of the Korean Wellness Society, 10*(1), 45-54.

Lee, K. J. (2017) *The effects of golf course service quality, service fairness, and risk perception on consumer behavior*. Unpublished doctoral thesis Suwon University graduate school.

Lee, S. Y., & Hwang, S. H. (2021). Differences in service landscape, human service, customer satisfaction and word of mouth intention according to users of commercial sports centers. *Journal of the Korean Sports Convergence Society, 19*(1), 101-113.

Lee, H. S., & Kim, Y. G. (2019). The relationship between intrinsic motivation, self-efficacy, and class satisfaction in liberal arts college students. *Proceedings of the Korean Society of Dance, 77*(1), 177-194.

Lee, S. E., Park, E. J., & Park, I. Y. (2021). The effect of golf course service quality on location attachment and customer behavior. *Journal of Convergence Knowledge Society, 9*(2), 103-116.

Lee, U. H., Jin, C., & Lee, B. C. (2020). Effect of service quality of membership sports center on customer behavioral intention. *Journal of the Korean Physical Science Association, 29*(4), 579-58.

Mano, H., &Oliver, R. L. (1993). Assessing the dimensionality and structure of the consumption experience: evaluation, feeling, and satisfaction. *Journal of Consumer research, 20*(3), 451-466.

Maslowsky, J., Jager, J., & Hemken, D. (2015). Estimating and interpreting latent variable interactions: A tutorial for applying the latent moderated structural equations method. *International journal of behavioral development, 39*(1), 87-96.

Oliver, R. L. (1997). Consumer perceptions of interpersonal equity and satisfaction intransaction: A field survey approach. *Journal of Marketing, 53*(2).

Oliver, R. L. (1999). Whence consumer loyalty?. *Journal of marketing, 63*(4_suppl1), 33-44.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and

its implications for future research. *Journal of marketing, 49*(4), 41-50.

Parasuraman, A., Zeithaml, V. A., & Berry, L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *1988, 64*(1), 12-40.

Park, J. Y., Bae, J. H., & Lee, A. S. (2020). The relationship between achievement goal orientation, perceived motivational mood, intrinsic motivation, and exercise continuity intention of students participating in college liberal arts physical education classes. *Learner-Centered Curriculum Education Research, 20*, 959-985.

Park, S. S., Kim, I. S., & Im, S. H. (2018). The effect of participation motivation of sports center users on leisure experience and leisure benefits. *Learner-Centered Curriculum Education Research, 18*, 1231-1245.

Ra, S. H., & Lee, Y. J (2015). A comprehensive review of literature related to customer satisfaction, customer loyalty, relationship marketing, and customer relationship management. *Marketing Research, 30*(1), 53-104.

Reichheld, F. F., & Sasser, W. E. (1990). Zero defeofions: Quoliiy comes to services. *Harvard business review, 68*(5), 105-111.

Rust, R. T., & Oliver, R. L. (1994). Service quality: Insights and managerial implications from the frontier, In Rust, R. T., & Oliver, R. L. (eds.). Service quality: New directions in theory and practice, 1-19. Thousand Oak: Sage Publications.16. Reichheld, F. F., & Sasser, W. E. (1990). Zero defects: Quality comes to services. *Harvard Business Review, 68*(5), 105-111.

Sage, A. P. (1977). Methodology for large-scale systems. McGraw-Hill College.

Seo, S. J. (2020). Effects of liberal arts classes on intrinsic motivation, achievement goal orientation, and self-esteem of participating female college students. *Journal of the Korean Physical Education Association, 25*(3), 151-161.

Yang, M. H. (2000). Analysis of participation motive, constraint factors and satisfaction of leisure sports: Wonder Surfing. *Journal of the Korean Physical Education Association, 5*(1), 161-178.

Yoo, D. G. (1992). Consumer behavior theory. Future Management.

Yoon, S R. (2018). *Effects of Sports Center Users' Sports Participation Characteristics and Service Quality on Consumer Behavior*. Unpublished master's thesis, Graduate School of Human Industry, Songwon University.

Received : February 28
Reviewed : March 30
Accepted : April 15