ORIGINAL ARTICLE
Customer Loyalty Scale in Sports Centers (Clssport)

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ABSTRACT
Background: Which was developed to determine the behaviors of loyalty, its sub-dimensions and their levels in people who receive services from the sports industry, will provide guidance to managers of sports centers for service provision, while increasing the awareness of the customers to shape their demands.
Aim: The aim of the study is to develop a scale to determine the customer loyalty levels of customers receiving service from sports centers serving in the public or private sector.
Methods: The research was designed as an original study in the general screening model.
Results: KMO= 0.784 and Barlett test $\chi 2$ = 6235,211 (p <.001) were conducted to test the suitability of the data for factor analysis. It was determined that the item factor loads of the scale ranged between 0.35 and 0.82. As a result of the exploratory factor analysis, a structure with 40 items and three factors that explained 67.12% of the total variance was obtained. It was concluded that the correlation values (.191- .311) between the sub-dimensions were appropriate, and the fit indices of the scale were significant (X^2=726,66 sd=408, p=.00, X^2/sd=1.78).
Conclusion: In the light of the analyses made and the findings obtained, it was concluded that the CLSSC is a valid and reliable scale that can determine the level of customer loyalty among receiving service from sports centers.
Keywords: sports industry, sports marketing, customer loyalty, sports center, scale

INTRODUCTION

Customer loyalty refers to customers who are devoted and loyal to a firm. In other words, the concept of customer loyalty can be defined as the tendency to choose only one firm to receive services from and to continue this relationship for a long time. The concept of customer loyalty is the customization of the customer and customer value based on the marketing mix (4). From another approach, customer loyalty is the combination of customer value, customer cost, customer availability and customer communication (17).

Continuous change processes in the markets have increased the importance of retaining existing customers for businesses as well as acquiring new customers. Valuing the customer, reflecting this on the customer and establishing long-lasting customer relations have become a necessity for institutions and organizations. For example, Uyar emphasized in his publication in 2018 that businesses have to spend 5 times more energy, time and money in order to retain their lost customers. On the other hand, these businesses fail to regain 68% of the customers they lose (26). A 10% increase in customer retention can increase the valuation of a business by approximately 30% (1).

Considering that customer loyalty depends on the concept of satisfaction, the importance of the quality of the service provided is highly evident (12). The most important factors affecting customer loyalty are quality, image and the value attributed to the customer. For example, brand image is an important factor that determines consumers' perspectives on products they have not tried before and prevents them from turning to alternative products (11). Therefore, the natural result of customer satisfaction will be customer loyalty (7). A consumer who is happy with the product and service he/she purchases tends to prefer the same company later. This is the first step in customer loyalty (14). Although there are many factors that can alter customer attitude, re-choosing the service or products previously purchased and loyalty to the business will create customer loyalty (15).

However, businesses have to provide customers with at least 12 positive experiences in order to repair any negative experience that customers may go through and to ensure customer satisfaction again (27). While the probability of repeat sale to loyal customers is 60-70%, their probability of selling to a new customer is around 15% (28). Therefore, as in every business, the concept of customer loyalty is critical in retaining the number of customers, gaining sales and cost advantages, and increasing turnover-profitability for sports centers as well. In order for sports centers to gain the loyalty of the customers they serve; they need to focus on the attitudes of their customers towards their business. In this context, customer loyalty can be examined in three approaches (9).

Behavioral approach consists of rational criteria such as the frequency and likelihood of the customer to choose the same service again (23). In this approach, the change in the benefit obtained by the customer from the service received the emergence of alternatives or the loss of the attractiveness of the service can change customer preference and the level of customer loyalty (2,5).

Emotional approach includes the emotional dependence of the customer. It is the situation where the customer gives a positive opinion and refers the business to others even if he/she does not receive any service. This attitude shows that the customer is still a loyal customer (2).

Mixed approach evaluates both behavioral and emotional aspects of customer loyalty together (2).

As a result of customer loyalty, which is evaluated by behavioral, emotional and mixed approach, the sense of loyalty that customers will feel towards the business from which they purchase sports services emerges at four different levels. These are:

Unloyalty is signalized when a customer does not feel loyal to the products and services of a business and does not prefer the products and services of the business (18).

False loyalty is shown when a customer buys a product or service from the business but does not have a positive view of that business (18).

Secret loyalty is expressed when a customer has positive thoughts about a business although he/she does not always prefer the goods and services of that business (3).

Strong loyalty is depicted when a customer is a permanent customer of a business and has a positive attitude towards its goods and services (6).

Significance Of the Study: The concept of customer loyalty is an important criterion in the sports industry as well. Customer (members) satisfaction, customer value, and the number and loyalty of customers are important factors that cannot be ignored by organizations providing sports services in the private or public sector. As a matter of fact, these factors are important both in terms of meeting the needs of the public to do sports and providing the financial support that the sports industry needs. Therefore, determining customer loyalty levels in sports centers has become a necessity in order to reach rational data about the customers who direct the inputs and outputs of sports facilities. This need will be met with the scale created as a result of the present study.

MATERIAL AND METHOD

In line with the information obtained from the literature review, the research question was designed within the framework of the concept of customer loyalty and its sub-dimensions, and an item pool of 51 items was designed to create a scale that can determine the level of "customer loyalty" in sports centers. In addition to many studies in the literature on scale development, the approach in the present study was based on Kim et al. Later, the design was shaped according to the opinions and suggestions received from 5 academicians who were experts in this field and the pilot application was started. Since the population of the research consists of customers receiving services from sports centers serving in the public and private sectors, the people participating in the pilot application were also selected from the same population.

A two-stage pilot study was conducted on the scale questions, and some expressions and sentence structures were edited. The scale consisting of 53 items was applied on a group of 40 people. The research group created for the pilot study consists of adults who exercise and do sports in sports centers in the private and public sectors. Subjects were asked to identify themselves with an alias on the scales they filled. After 14 days, the 53-item scale was applied again to the same group with the same aliases. The aliases were used to protect anonymity and to compare their perspectives on the scales. The statements and sentence structures were corrected by examining the data obtained from the first and second stages of the pilot study and making comparisons. In addition, by examining the Cronbach's Alpha values of the items, 13 items that did not meet the criteria were removed from the item pool, and the scale was given its final form with 40 items.

Scale Design: The scale consists of 40 items and three sub-dimensions. The sub-dimensions of the concept of customer loyalty in the literature were examined and three sub-dimensions were designed under the concept of customer loyalty in sports centers. Factor analysis was limited to these three dimensions.

- Rational dimension (price, hygiene, quality etc.)
- Emotional dimension (emotional attachment)
- Mixed dimension (both)

The scale is a 5-point Likert type scale and is interpreted based on total scores. 11 items (9,16,18,25,56,27,31,32,35,36,38) in the scale are scored in reverse. The total score that can be obtained from the scale is between 40-200. There is a linear relationship between total scale score and customer loyalty. In other words, the higher the total scores, the higher the level of customer loyalty. The scale can be applied to any adult, as well as parents on behalf of their children.

The scale was applied to a sample group of at least 5 times the number of items in the scale. Validity of the scale was examined by exploratory and confirmatory factor analyses. Exploratory and confirmatory factor analysis was examined with a sample group of 200 people, 113 men and 87 women. The sample group consisted of adult individuals (age: 18-57) receiving service from public and private sports centers.

Analysis of Data: Exploratory factor analysis (EFA), item-total correlations, confirmatory factor analysis (CFA), and reliability (Cronbach Alpha and split-half reliability) analyses were used in this study, which was conducted to develop a scale to determine customer loyalty levels of consumers receiving services from sports centers. It was determined that there were no missing values and incorrect data entries in the data set, and exploratory factor analysis (EFA) was performed to determine under which factors the expressions in the item pool would be collected. In addition, "item-total correlations" were calculated for the analysis of item distinctiveness. Confirmatory factor analysis (CFA) was performed in order to verify the three-factor structure determined by exploratory factor analysis (EFA) and the results are presented below.

RESULTS

Findings of Exploratory Factor Analysis (EFA): In the exploratory factor analysis, "maximum likelihood technique" and the "promax rotation method" were used and the variance explained by each sub-dimension was required to be at least 5%. The eigenvalues were taken as ≥ 1.00 and the item factor loads were taken as ≥ 0.30. Furthermore, a difference of ≥ 0.10 was required among the items with a sufficient factor load collected under more than one factor (21,22).

In order to test the suitability of the data collected from the sample group for factor analysis, KMO and Bartlett tests were conducted. KMO was found to be 0.784 and Barlett test χ^2 value was found to be 6235,211 (p <.001). The fact that KMO is higher than .60 and a significant Barlett test result indicates that the data is suitable for factor analysis (19,20). The results of the exploratory factor analysis for the scale are presented in Table-1.

Table-1 Item Factor Loads of the Scale, Variances Explained by the Subscales, and Item Analyses

Articles	Factor 1	Factor 2	Factor 3	Total Item Correlation
M1: This facility is always very clean.	.82			.44
M2: I prefer this facility because the cost of service is affordable.	.78			.49
M4: I think this facility is more practical than any other facility.	.75			.48
M5: I prefer this facility because the service is always high quality.	.72			.49
M6: I prefer this facility because of the accessibility.	.69			.51
M8: I can get my money's worth at this facility.	.65			.50
M13: This facility is my first choice, I haven't tried any other facilities yet.	.61			.51
M14: I prefer the facility because of the good WC and shower bath opportunities.	.58			.52
M16: I don't like it when the facility is crowded.	.55			.53
M26: I can make a change if there is an alternative with lower prices.	.54			.51
M27: I can make a change if there is an alternative facility providing a higher quality of service.	.50			.47
M38: Customers are valued only for their money at this facility.	.49			.45
M9: I won't choose this facility again for the next time.		.66		.52
M10: I have the opportunity to socialize with other people in this facility.		.64		.43
M11: Even if I experience minor issues in this facility, I will continue to get services.		.61		.44
M20: I think people in this facility are pleased with the services.		.59		.45
M21: I'm a loyal customer, and I'll always prefer this facility.		.62		.50
M23: Even if I don't get very good service from this facility, my opinion is positive.		.58		.51
M24: If I choose another facility, I would think I'm a disgrace to the employees at this facility.		.55		.39
M31: I don't feel like I belong to this facility.		.52		.43
M32: I don't feel comfortable in this facility.		.50		.46
M34: I trust the employees of this facility.		.49		.59
M35: Customer relations of employees are poor.		.47		.52
M36: Facility managers don't care about customers.		.45		.37
M37: The facility gives SPECIAL AND DIFFERENTIAL treatment to its former customers/participants.		.44		.38
M40: I am a long-standing customer in this facility.		.43		.36
M3: I prefer this facility because it's always clean.			.55	.45
M7: I prefer this facility because the coaches and trainers in there are qualified.			.52	.49
M12: I'm generally satisfied with this facility.			.50	.48
M15: I've been a customer of this facility for a long time.			.49	.39
M17: I think the customer profile of this facility is good.			.45	.42
M18: I think there is a need for facilities that can provide better service.			.44	.44
M19: I can continue to get services from this facility again for some other times.			.43	.42
M22: I think there is no need to try other facilities.			.42	.45
M25: If there's a better alternative, I can change the facility that I have chosen already.			.41	.39
M28: Under no circumstances would I decide to go to another facility.			.40	.38
M29: I would recommend this facility to other people.			.38	.39
M30: I feel like "I am the owner" in this facility.			.37	.39
M33: I spend most of my sports-related time at this facility.			.36	.41
M39: This facility cares about "customer satisfaction".			.35	.43
	% 48,19	% 10.07	% 8,86	
	Total Variance = % 67,12			

As a result of the exploratory factor analysis, a three-factor structure that explains 67.12% of the total variance was obtained. As seen in Table 1, the first factor consists of 12 items and the total variance explained by the first factor is 48.19%, the second factor consists of 14 items and the total variance explained by the second factor is 10.07%, and the third factor consists of 14 items and the total variance explained by the third factor is 8.86%. The first factor (items: 1,2, 4,5,6,8,13,14,16,26,27,38) was named as the "rational customer loyalty" sub-dimension, the second factor (items: 9,10,11,20,23,24,31,32,34,35,36,37,40) was named as the "emotional customer loyalty" sub-dimension, and the third factor (items: 3,7,12,15,17,18,19,22,25,28,29,30,33,39) was named as the "mixed customer loyalty" sub-dimension.

It was determined that the item factor loads of the scale ranged between 0.82 and 0.35. According to Tabachnick and Fidell (25), the factor load of the scale should be at least 0.32. Therefore, according to the data obtained, it was concluded that the item factor loads of the three-factor structure were sufficient. On the other hand, Kline (12) states that the variance explained by the scale should be at least 40%. In the present study, the total variance explained by the scale was found to be 67.12%. Therefore, it was concluded that the results were sufficient to decide on the factor structure.

Pearson correlation analysis was conducted to determine the relationship between sub-dimensions of the scale. The correlations between the sub-dimensions varied between .191 and .311, and it was concluded that the sub-dimensions were different from each other.

Table-2 Correlations between the Sub-Dimensions of the Scale

	1	2	3
Factor 1	1		
Factor 2	.204*	1	
Factor 3	.191*	.311*	1

* p< 0.05 (2-tailed)

In addition, it is recommended that the correlation coefficient between factors, which is defined as multicollinearity, should not exceed .90 (24). When Table-2 is examined, it is seen that the correlation coefficients between the sub-dimensions are below 0.90 and there is no problem of multicollinearity between the sub-dimensions of the scale (22).

Findings of Confirmatory Factor Analysis (CFA): Confirmatory factor analysis was conducted to examine the model fit of the three-factor structure obtained as a result of the Explanatory Factor Analysis. In the confirmatory factor analysis, GFI, CFI, NFI, RFI, IFI and AGFI multiple fit indices were used and the acceptable fit value for each index was considered as 0.90. In addition, 0.08 fit value was accepted as the criterion for the basic fit indices RMSEA, RMR and SRMR (20,21).

Figure-1 CFA Results for the Scale

When Figure-1 is examined, it is seen that the fit indexes of the Customer Loyalty Scale in Sports Centers, which consists of 40 items and three sub-dimensions, are all significant (X^2=726,66 sd=408, p=.00, X^2/sd=1.78). The fit indices were found as RMSEA = .070, RMR = .055, NFI = .95, NNFI = .95, CFI = .94, IFI = .94, RFI = .94, AGFI = .90, and GFI = .91. The model fit indices of the three-factor structure tested with the CFA analysis were found to be sufficient and the three-factor structure of the scale was confirmed.

After the standard analysis, the t values between the factors and items were examined, and it was concluded that there were no items incompatible with the overall scale. Jöreskog and Sörbom (8) state that the absence of red arrows about t values indicates that all items are significant at the .05 level. The absences of red arrows in the t values were evaluated as all items were significant at the .05 level and were consistent with the overall scale.

The results obtained from the exploratory and confirmatory factor analyses demonstrate the construct validity of the scale. Then, internal consistency and split-half reliability analyses were performed to examine the reliability of the scale, and the findings are presented in Table-3.

Table-3 Reliability Coefficients of the Scale Calculated Using the Internal Consistency and Split-Half Reliability Method

Dimensions	Internal Consistency Reliability	Split Half Reliability Test
Factor 1	.87	.78
Factor 2	.82	.74
Factor 3	.81	.71
Total Scale	.86	.77

Landis and Koch (13), and Robinson et al. (16) state that having a reliability coefficient of .70 and above is sufficient for the scale to be considered reliable. Hence, when Table-3 is examined, it is seen that the reliability analysis values for the "Customer Loyalty Scale in Sports Centers (CLSSC)" are above .70, and the reliability coefficient for the overall scale is .86. In other words, it was found that the sub-dimensions and items of the scale statistically met the reliability criteria.

DISCUSSION AND CONCLUSION

As a result of the present study, a valid and reliable measurement tool that can be used in field studies was developed in line with the findings obtained from the exploratory and confirmatory factor analyses and the findings from the reliability analysis. It was concluded that the "Customer Loyalty Scale in Sports Facilities (CLSSC)" is a valid and reliable scale that can measure the loyalty level of customers receiving services from sports centers.
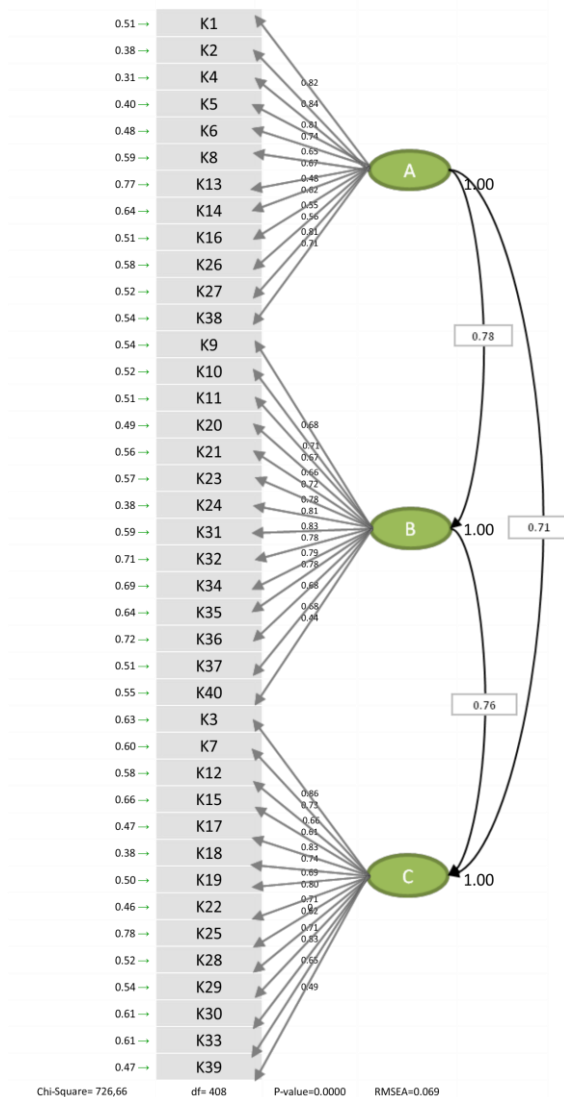
CLSSC can contribute to the field of sports sciences as a valid and reliable scale that can be applied by sports centers serving in the public and private sectors to their customers.

Having reviewed literature, various customer loyalty scales are found in different fields and subjects. Many valid and reliable scale studies on "customer loyalty" have been published, especially in the fields of management, business, and marketing. However, a customer loyalty study has not been carried out considering the management of sports centers. Therefore, this study is unique in terms of sports management, and it will also create awareness among businesses and customers creating supply and demand in sports centers. In this way, managers will have more information about what needs to be done to ensure and increase customer loyalty, and their awareness on this issue will also increase. On the other hand, customers will learn about the level of loyalty they feel towards a sports center they receive services from and the underlying reasons. These earnings, in return, will increase the service quality and the number of customers due to the intensity of the relationship between customer awareness and supply and demand. The result of the mentioned advantages will also be reflected in the public sector and opportunities for more people to receive physical education and do sports will expand.

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