

The applicability and generalizability of the Service Quality Assessment Scale

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Service quality has been considered as a critical element for service firms to position themselves effectively in a competitive environment (Mehta, Lalwani, & Soon, 2000; Parasuraman, Zeithaml, & Berry, 1985; Shemwell, Yavas, & Bilgin, 1998). In the business or service industry setting, there is little doubt that the SERVQUAL scale (Parasuraman, Zeithaml, & Berry, 1985, 1988) is one of the most widely used instruments for measuring service quality. In spite of its popularity, the five-dimension SERVQUAL scale (tangibles, reliability, responsiveness, assurance, and empathy) is problematic when applying in the sport, recreation, or health-fitness setting. The uniqueness of the recreation or health-fitness industry is the programs it offers. This essential dimension is missing from the SERVQUAL model (Brady & Cronin, 2001; MacKay & Crompton, 1988, 1990; McDougall & Levesque, 1994; Parasuraman et al., 1988; Rust & Oliver, 1994). For this reason, researchers have developed various scales that are pertinent to the recreation and health-fitness settings. These scales, among others, include the Scale of Attributes of Fitness Services (Chelladurai, Scott, & Haywood-Farmer, 1987), the 33-item QUESC (Kim & Kim, 1995), the Center for Environmental and Recreation Management-Customer Service Quality (Howat, Absher, Criley, & Milne, 1996), the scale developed by Papadimitriou and Karteroliotis (2000), and the Service Quality Assessment Scale (Lam, Zhang, & Jensen, 2005). Consistently, these scales have identified the program element as an important factor that affects customer satisfaction.

The main purpose of this study was to examine the service quality provided by the YMCAs at a Midwest city of the United States. The Service Quality Assessment Scale (SQAS) was adopted for this study because it was the only scale that had gone through the validation process as claimed by the researchers (i.e., by means of a confirmatory factor analysis). The SQAS had six dimensions: Staff, Program, Locker Room, Physical Facility, Workout Facility, and Child Care. Since all the YMCAs under investigation had a swimming pool, another dimension, Aquatic Facility, was added to the scale. Because of this alternation, another purpose of this study was to examine the psychometric properties the SQAS, which was developed in the South. The modified version of the scale (SQAS-R) was mailed to members of three different YMCA branches in the same county between the months of April and May in 2008. Participants were asked to return the questionnaire to the YMCA in two weeks on a voluntary basis. Item responses of the SQAS-R were based on a 7-point Likert scale (e.g., 1 = poor, 4 = average, and 7 = Excellent). SPSS 11.5 for Windows (SPSS, 2004) was used for data analysis. Participants (N=326) of this study consisted of 26% male and 74% female members. Most of them were Family Members (59.4%) who had been with the YMCA for four or more years (48.7%). The majority of them (84.6%) visited the center at least three times a week and used mainly the fitness facility (54.6%) and/or aquatic facility (40.7%). More than half of the participants (55.8%) were between 26 and 50 years old and they would like to go the YMCA during the hours of 10 a.m. to 2 p.m. (37.9%).

Results of one-sample t-tests showed that the mean perception scores for all items of the SQAS-R were significantly ($p < .001$) different from the median score, indicating members were satisfied with the services offered by the YMCAs. Univariate ANOVA analyses indicated that no significant ($p > .05$) differences were found in Program and Physical Facility among members with different gender, years as a member, and education level. However, there were significant ($p < .05$) differences in Program and Physical Facility among members in the following aspects: use frequency, age, and time visited the facility. Fisher LSD post hoc multiple comparisons showed that older members (over 65 years of age) were more satisfied with the service quality than their younger counterparts (26-65 years old). However, members visited the center between 6:00 p.m. and 11:00 p.m. were more disappointed than those who used the facility in other times (between 5 a.m. and 6 p.m.). In addition, members who used the facility once or twice a week were less satisfied than those who used the facility 3-6 times a week. In summary, members in general were satisfied with the programs and services offered by the YMCAs. Nevertheless, Locker Room had the lowest scores among all the seven dimensions of the SQAS-R, any improvement in this area would enhance the overall service quality scores. One of the finding indicated that members visited the YMCA at different time of the day might perceived service quality differently. More specifically, a lot of members would like to workout between 6:00 p.m. and 10:00 p.m. and obviously, there was a higher demand in workout equipment during these peak hours. Viewing that members were disappointed when they visited the facility due to the unavailability of fitness equipment, it was logical for the management to allocate more resources and personnel to this area.

On the other hand, exploratory factor analysis was used to examine the psychometric properties of the SQAS-R. Alpha extraction (Kaiser & Caffrey, 1965) was used when the number of factors was fixed to seven. After examining the pattern matrix from the promax rotation (Hendrickson & White, 1964), three items were removed because of double loadings. The same FACTOR REDUCTION procedure was employed again to the data set without those deleted items. As a result of this

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refinement, all the remaining items of the SQAS-R had a factor loading of .35 or higher without double loading. The final version of the SQAS-R had 43 items: Staff (9 items), Program (6 items), Locker Room (6 items), Physical Facility (6 items), Workout Facility (5 items), Aquatic Facility (5 items), and Child Care (6 items). These seven dimensions explained a total variance of 62.50% of the SQAS-R. Cronbach's alphas of these six dimensions were .937, .859, .852, .894, .899, .897, and .898, respectively. This demonstrated a strong internal consistency of those items in each dimension. To sum up, even with the addition of an extra dimension, the SQAS has proved to be reliable and applicable in the current study. Therefore, it is concluded that the SQAS is a reliable instrument that can be applied to different samples in the recreation or health-fitness setting. Nevertheless, further studies using confirmatory factor analysis would be useful in identifying the Scale's convergent validity (Bagozzi & Yi, 1988; Fornell & Larcker, 1981) as well as discriminant validity (Anderson & Gerbing, 1988; Fornell & Larcker, 1981).