A SCALE FOR MEASURING LOYALTY IN SPORT SERVICES: A RELIABILTY AND VALIDITY STUDY

ABSTRACT

The purpose of this study was to assess validity and reliability analysis of Loyalty Scale in Sport Services (LSSS) was developed by Bodet (2012). The participants of this study constituted of 111 male and 99 female health-fitness club’s members from Ankara (i.e., capital city of Turkey). All items were measured and sorted using a five point Likert scale. The Confirmatory Factor Analysis (CFA) was used to examine the factor structure of the LSSS. Eight-factor model of LSSS was analyzed based on the Maximum Likelihood (ML) estimation method. Cronbach’s alphas were calculated for the subscales to evaluate their internal consistency. Pearson Moment Correlation Coefficient was also employed to examine concurrent validity. Analysis illustrated that, the goodness-of-fit indices of the model were admissible: Root Mean Square Error of Approximation (RMSEA) was 0.09, both the Comparative Fit Index (CFI) and the Incremental Fit Index (IFI) were 0.93, besides the Tucker-Lewis Index (TLI) was 0.91. It was concluded that all of the goodness-of-fit indices model were admissible. It was concluded that all of the goodness-of-fit indices model were admissible. Results finally revealed that the LSSS-Turkish adapted form with eight-factor model appears to be a reliable and valid instrument to measuring loyalty in sport services.

Keywords: Sport Service, Loyalty, Validity, Reliability

SPOR HİZMETLERİNDE SADAKAT ÖLÇEĞİ: BİR GEÇERLİLİK VE GÜVENİLİRİK ÇALIŞMASI

ÖZ

Bu çalışmanın amacı Bodet (2012) tarafından geliştirilen “Spor Hizmetlerinde Sadakat Ölçeği”nin (SHSO) geçerlik ve güvenirlik çalışmasını yapmaktadır. Çalışmanın örneklem grubunu Ankara’da sağlık ve zindelik kulüplerine üye olan 111 erkek ve 99 kadın katılımcı oluşturmaktadır. Ölçekte yer alan tüm ifadeler %5'li Likert tipi ölçek üzerinden değerlendirilmiştir. Ölçeğin alt boyutlarının faktör yapısı test etmek için Doğrulayıcı Faktör Analizi (DFA) kullanılmıştır. SHSO'nun 8 faktörlü yapısi Maksimum Olalabilirlik tahmin yöntemi tehtel alınarak analiz edilmiştir. Ölçeğin alt boyutları ilişkini iç-tutarmalı katsayıları Cronbach alfa güvenirlik katsayısı ile hesaplanmıştır. Ölçeğin eş zamanlı geçerliği kant sağlanması amacıyla Pearson Korelasyon Analizi ile faktörler arasındaki korelasyonlar incelenmiştir. Analiz sonuçları, Yaklaşık Hataların Ortalaması (RMSEA) = 0.09, Karşılaştırmalı Uyum İndeksi (CFI) ve Fazlalılık Uyum İndeksi (IFI) = 0.93 ve Tucker-Lewis İndeksi'nin = 0.91 olduğunu göstermiştir. Bu uyum indeksi değerlerine göre test edilen modelin kabul edilebilir olduğu söylenebilir. Analiz sonuçları, ölçeğin alt boyutları için hesaplanan Cronbach alfa değerlerinin 0.73-0.95 arasında değişと言い ve tüm alt boyutların için 0.70 değerinde yüksek olduğunu ortaya koymmuştur. Sonuç olarak, T-SHO'nun test edilen 8 faktörlü yapısının spor hizmetlerinde sadakat belirlemek için geçerli ve güvenilir bir ölçme aracı olduğu ifade edilebilir.

Anahtar Kelimeler: Spor Hizmeti, Sadakat, Geçerlilik, Güvenirlik

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INTRODUCTION

In today’s great competitive environment, organizations seek to protect consumer interest for a longtime (Sudhahar et al., 2006) in both product and service sectors. General agreement in marketing is on building customer loyalty to generate positive returns to a company such as more predictable profit streams, increased sales and decreased costs (Jones and Taylor, 2007). So that, in the marketing literature researcher indicated generally that customer loyalty is an important factor to gain the competitive advantage (Javadein et al., 2008; Prichard et al., 1999) and a key for surviving and growth of company (Javadein et al., 2008; Reichheld, 2003). However, conceptualization and also measurement of “loyalty” has been varied considerably across studies (Jones and Taylor, 2007; Oliver, 1999).

Gitomers’ (2001, p.246) argument on “satisfied customers will shop anywhere--satisfaction is not any indication that the customer will repeat the purchase”, however importance of service quality and its result consumer satisfaction generally indicated by the researchers (e.g., Kheng et al., 2010; Mittal and Kamakura, 2001; Rai and Srivastava, 2012) to improve profitability for any organization that runs in a consumer market. The source of this decision is depended on that dissatisfied customers will not be most probably to re-use or repurchase the products or services (Fornell and Wernerfelt, 1987). Besides satisfaction, researchers pointed out the importance of involvement (Ajzen, 2001; Rai and Srivastava, 2012) and psychological commitment (Jones and Taylor, 2007; Prichard et al. 1999; Rai and Srivastava, 2012; Sudhahar et al., 2006) as the main antecedents of loyalty.

More than a decade same developments or arguments about the importance of loyalty were actualized in leisure industry. Since, in today’s world increasing leisure time in individuals life give rise to more motivate them to participate the leisurely activities (Bodet, 2012) and this situation has created proper market and caused the leisure industry to be more competitive. However, motives to leisure activities are varying among the consumers. These are healthy aging, weight control, avoiding the stress, having a good time, meeting the new people (Lavarie, 1998). This changing meaning of leisure participation creates a noncompliance between participants’ expectations and leisure sport organizations’ services. Thus, understanding consumer loyalty is become a popular subject and finding out drives of consumer loyalty is an important issue for the leisure sport service managers (Bodet, 2012).

Researchers, who have studies on leisure sport service sector, identified some antecedents of loyalty. These direct or indirect antecedents were including satisfaction (Bodet, 2008; Ferrand et al. 2010; Murray and Howat 2002; Pedragosa and Correia, 2009), involvement (Heere and Dickson, 2008; Hill and Green, 2000; Kyle et al., 2004; Park, 1996), psychological commitment (Iwasaki and Havitz, 2004; Iwasaki and Havitz, 1998) and value perceptions (Cronin et al., 2000).

Although loyalty is an important concept in service sector to understand the consumer purchase behavior, there is lack of study in leisure sport service sector except some pioneer studies in banking service sector (Demirel, 2007; Çankaya and Çilingir, 2008) and tourism service sector (Çati and Koçoğlu, 2008) in Turkey. Therefore, the purpose of this study was to assess the factors that predict actual Turkish sport service
consumer repurchase behavior via the validity and reliability analysis of loyalty scale was developed by Bobet (2012).

Theoretical Background

Customer Satisfaction and Loyalty

Customer satisfaction is the feelings that when customer needs are fulfilled and meeting their expectations lead to satisfaction with service. That's why satisfied customers will have more intentions to buy the service again or will use the positive words about the service to other potential customers (Javadein et al., 2008) and satisfaction is accepted as an antecedent of future buying intentions (Cronin et al., 2000; Ferrand et al., 2010). In turn, measurement of customer satisfaction can make sure the managers with comparatively dependable indicators of future customer support for their services (Javadein et al., 2008). Therefore significant attention has been focused on customer satisfaction (Bernhardt et al., 2000; Mittal and Kamakura, 2001) and theory and practice in marketing research customer satisfaction has drawn considerable interests in many industries (Ferrand et al., 2010; Oliver, 1999; Mosahab et al., 2010).

In the literature, there is a number of research settings supports that satisfaction has a positive effect on intention to repurchase (Cronin et al., 2010; Kheng et al., 2010; Rahman, 2013). These researches presented that customer satisfaction provides strong evidence of the positive impact on intention to repurchase. Consequently, there is no limitation in literature about the tendency of the satisfied customer and customer satisfaction is acting as a mediator of customer loyalty (Gul, 2014; Oliver, 1999; Pedregosa and Correia, 2009; Rahman, 2013). For example, Gul (2014) and Kheng et al. (2010) found satisfaction was an important antecedent of repurchase intention in banking service. Researchers have found that satisfaction had positive effects on wistfulness to give advice the service to another people, increase frequency of visits and build up the possibility of repurchase behavior from the current service provider in sport service (Alexandris et al., 2004; Bobet, 2012; Ferrand et al., 2010; Howat et al., 1999; Pedragosa and Correia, 2009).

Involvement, Commitment and Loyalty

Loyalty is a much more complex construct, so that satisfied customer is not enough to explain loyalty's antecedents (Pritchard et al., 1999). In marketing and leisure researches widely accepted that psychological commitment has a mediating role between involvement and loyalty (Iwasaki and Havitz, 1998; Iwasaki and Havitz, 2004; Kyle and Chick, 2004). The concept of involvement is defined “an unobservable state of motivation, arousal, or interest toward a recreational activity or associated product, evoked by a particular stimulus or situation and has drive properties.” (Kyle et al., 2004; Havitz and Dimanche, 1997). Conceptualization of involvement widely based on the Laurent and Kapferer’s (1985) and Zaichkowsky’s (1985) framework in leisure studies (Funk et al., 2004; Kyle and Chick, 2004). Enduring part of this conceptualization stands on pleasure or hedonism, and sign (Green and Chalip, 1997; Koç, 2012). In this conceptualization “pleasure” reflects the hedonic value of the product or service “sign” known as self-expression, reflects the symbolic dimension the consumer attributes to the product or service and in addition to these two components “risk” and “situational” components were accepted problematic by Bobet (2012).
Another antecedent of loyalty is commitment significantly affects customer or participant loyalty (Iwasaki and Havitz, 2004; Pritchard et al., 1999), was described an attitude of resistance to change and this process is well explained with informational process, identification process and volitional process. Process of commitment antecedent is best explained by resistance to change (Pritchard et al., 1999) and resistance to change is explained by informational complexity, identification process and volitional process (Bobet, 2012).

In Bobets’ research model (2012) it was accepted that psychological commitment has a little potential to estimate the loyalty in direct manner and plays the important role for displaying the relationship between satisfaction, value, and loyalty when it is mediated. This means that satisfied consumers have higher intentions resistant to change and more willingness to sustain their relationships. Attendantly loyalty is increased to the recreation agencies and sport-service providers.

Figure 1. The research model of consumer loyalty in sport participation organizations (Bobet, 2012).

Bobet (2012) was accepted the involvement and resistance to change principal evidence of psychological commitment and maintain the identification, informational, and volitional factors as a direct antecedents’ of involvement and resistance to change while explaining the consumer loyalty formation process. In this approach Bobet pay attention also identification, informational, and volitional processes and accepted them as a relevant antecedents to clarify consumer loyalty’s formation processes (Figure 1).
MATERIAL AND METHOD

Participants

The participants of this study were constituted of 111 male (52.86%) and 99 female members (47.14%) who were randomly selected from three different leisure sports centers that are operating for the present in Ankara, Turkey. Leisure sports centers were selected according to their programs (minimum 3 different program), number of staff (over than 20 full time), and number of members (over than 1000). Members in the sample were from different age, income and education level. The sample obtained demonstrated that the mean age of the participants were $M_{age} = 29.89$ yr, $SD = 9.53$. Participants’ income varied from less than 2500 TL (20%) to 5001 TL and above (29%). The majority of the (65.7%) participants had Bachelor of Science (B. Sc.) degree.

Data Collection Instrument

The LSSS was used to collect data on leisure sports centers members’ developed by Bodet (2012). The scale consists of 8 dimensions and 23 items. The dimensions of the scale titled as; (a) Behavioral Intentions (BI) (3 items), (b) Resistance to Change (RC) (3 items), (c) Overall Satisfaction (OS) (3 items), (d) Perceived Value (PV) (3 items), (e) Position Involvement (PI) (3 items), (f) Informational Complexity (IC) (3 items), (g) Importance-Hedonism (IH) (2 items), (h) Sign (SI) (3 items). Participants were asked to rate each item on a 5-point Likert type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The translation-back translation method was used to make certain that the wording of items in Turkish would be equivalent to the original meaning of items in English. Providing the cross-cultural and conceptual consistency a bilingual expert panel was administered by 3 experts. Expert1 was the original translator, Expert2 has the experience with instrument development and Expert3 was familiar to leisure and marketing literature. The translated version of scale was completed after the panel process and then back-translation process was taken place. For this process an independent translator was used whose mother language is English. Independent translator who had no knowledge about the scale, translated the scale back to English. After this process, an expert panel was administered again until a satisfactory Turkish version was reached. Turkish version of scale was pre-tested on target population (15 participants over than the 18 years old). According to the pre-test suggestions and complaints on scale was arranged and final version was applied the participants.

The Turkish version of the LSSS was administrated to members in their club setting especially before the exercise period. Before the administration of the scale information were given to the members who agreed to participate voluntarily about how to complete the inventory by reading the instruction part and explained the purpose of the study.

Statistical Analysis

Statistical analyses of this study were as follows: factorial structure of the scale was tested by using Confirmatory Factor Analysis (CFA). To assess model fit, we used fit indices such as chi-square/degree of freedom ($\chi^2/df$), root mean square error of approximation (RMSEA), comparative fit index (CFI), Tucker-Lewis index (TLI), and incremental fit index (IFI). For the $\chi^2/df$ values of less than 5 are considered adequate (Schumacker and Lomax, 1996) and the RMSEA should be less
than 0.10 (MacCallum et al., 1996). For the CFI, TLI, and IFI indices, values greater than 0.90 are considered acceptable fit to the data (Hu and Bentler, 1999). Pearson Moment Correlation Coefficient was employed to assess concurrent validity. Cronbach’s alphas were calculated for the subscales to evaluate their internal consistency.

RESULTS
Table 1 showed that the mean value of the items were ranged between 3.08 and 4.18, and the factor loadings of the items were differed from 0.74 and 0.94.

Table 1. Confirmatory factor analysis results of the scale

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Items</th>
<th>M</th>
<th>SD</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI</td>
<td>The probability that I will renew my membership is</td>
<td>4.04</td>
<td>1.05</td>
<td>0.87</td>
</tr>
<tr>
<td></td>
<td>The likelihood that I recommend this club to a friend is</td>
<td>4.08</td>
<td>0.96</td>
<td>0.94</td>
</tr>
<tr>
<td></td>
<td>If I have to do it over again, I would make the same choice</td>
<td>4.01</td>
<td>0.96</td>
<td>0.93</td>
</tr>
<tr>
<td>RC</td>
<td>My preference to being a member of this club would not willingly change</td>
<td>3.93</td>
<td>0.98</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td>It would be difficult to change my beliefs about this club</td>
<td>3.78</td>
<td>1.04</td>
<td>0.88</td>
</tr>
<tr>
<td></td>
<td>Even if close friends recommended me another fitness club, I would not change my preference for this club</td>
<td>3.56</td>
<td>1.19</td>
<td>0.74</td>
</tr>
<tr>
<td>OS</td>
<td>I am satisfied with my decision to join this club</td>
<td>4.14</td>
<td>0.99</td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>I think that I did the right thing by deciding to join this club</td>
<td>4.18</td>
<td>0.99</td>
<td>0.95</td>
</tr>
<tr>
<td></td>
<td>My choice to join this club was a wise one</td>
<td>4.13</td>
<td>1.02</td>
<td>0.90</td>
</tr>
<tr>
<td>PV</td>
<td>Compared with what I had to give up, the overall ability of this club to satisfy my wants is</td>
<td>3.79</td>
<td>1.05</td>
<td>0.84</td>
</tr>
<tr>
<td></td>
<td>Overall, joining the club provides me more than it costs</td>
<td>3.58</td>
<td>1.13</td>
<td>0.83</td>
</tr>
<tr>
<td></td>
<td>Overall joining the club worth all the energy that I put into it</td>
<td>3.87</td>
<td>0.99</td>
<td>0.86</td>
</tr>
<tr>
<td>PI</td>
<td>I am a member of this club because its image comes closest to reflecting my lifestyle</td>
<td>3.53</td>
<td>1.12</td>
<td>0.91</td>
</tr>
<tr>
<td></td>
<td>I am a member of this club because it reflects the kind of person I am</td>
<td>3.45</td>
<td>1.16</td>
<td>0.93</td>
</tr>
<tr>
<td></td>
<td>I am a member of this club because it makes me feel important</td>
<td>3.45</td>
<td>1.17</td>
<td>0.75</td>
</tr>
<tr>
<td>IC</td>
<td>I don’t really know that much about this club*</td>
<td>3.64</td>
<td>1.27</td>
<td>0.46</td>
</tr>
<tr>
<td></td>
<td>I consider myself to be an educated consumer regarding this club</td>
<td>3.95</td>
<td>1.03</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td>I am knowledgeable about this club</td>
<td>4.02</td>
<td>0.99</td>
<td>0.95</td>
</tr>
<tr>
<td>IH</td>
<td>The sport activity that I practice in this club is very important for me</td>
<td>3.98</td>
<td>1.07</td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>Practicing this sport activity is a great source of pleasure for me</td>
<td>3.75</td>
<td>1.03</td>
<td>0.83</td>
</tr>
<tr>
<td>SI</td>
<td>We can have an idea of someone by the sport activity he/she practices</td>
<td>3.19</td>
<td>1.16</td>
<td>0.91</td>
</tr>
<tr>
<td></td>
<td>The sport activity you practice tells a little bit about who you are</td>
<td>3.13</td>
<td>1.26</td>
<td>0.99</td>
</tr>
<tr>
<td></td>
<td>The sport activity I practice reflects a little bit which kind of person I am</td>
<td>3.08</td>
<td>1.27</td>
<td>0.89</td>
</tr>
</tbody>
</table>

The results of the CFA demonstrated an acceptable fit of the hypothetical factor model of the scale with the 8-factor structure ($\chi^2$/df=2.68, RMSEA=0.09, IFI=0.93, TLI=0.91, CFI=0.93). Path diagram of Turkish of version of the T-LSSS were presented in Figure 2.

Figure 2. Path Diagram for the T-LSSS
Correlation analysis was conducted to test the relationship between the scale's factors and analysis showed that there were significant correlations among the dimensions at the 0.01 and 0.05 levels. We also found good internal consistency, which confirms the scale as a reliable instrument (α<sub>BI</sub>=0.94, α<sub>RC</sub>= 0.84, α<sub>OS</sub>= 0.94, α<sub>PV</sub>= 0.88, α<sub>PI</sub>= 0.89, α<sub>IC</sub>= 0.73, α<sub>IH</sub>= 0.86, α<sub>SI</sub>= 0.95).

### DISCUSSION

The purpose of the current study was to confirm the factor structure and establish construct validity of the Turkish version of the leisure sport service loyalty scale was originally developed by Bodet (2012). The findings gathered to this end are discussed and interpreted in this section.

The original structural model of the LSSS consists of eight factor and 23 items and CFA results confirmed that the eight-factor structure version well fit to Turkish culture (Table 1). Based on the fit indices, it may be concluded that there is a relatively good fit between the model and the data. The results are highly compatible with the findings of conducted with the Bodet’s (2012) study. For the secondary purpose, our results were shown that significant relationships between overall satisfaction, dimensions of enduring involvement: perceived value, position involvement, informational complexity, and the importance-hedonism and resistance to change, the main evidence of psychological commitment (Table 2). These findings are in parallel with the original study (Bodet 2012). The T-LSSS Cronbach Alpha coefficient values for the eight factor were differed from 0.73 (Informational complexity) to 0.95 (Sign) and this means all eight factors have high reliability level. In addition to; the results of the correlation analysis illustrated that the dimensions were moderately and highly related to each other.

Some aspects of this study were in parallel with the literature. For example, findings on enduring involvement (Kyle, 2004; Park, 1996), resistance to change (Iwasaki and Havitz 2004) and satisfaction (Javadein et al., 2007; Murray and Howat, 2002) were similar with our findings. Significant relationship between these dimensions appear essential for development of consumer loyalty to a leisure sport service agency. As a conclusion, it can be said that the 23 items scale developed by Bodet (2012) is reliable and valid to examine the loyalty levels of Turkish leisure sport centers' consumers. The sample of leisure sport

### Table 2- Correlations and alphas for the scale

<table>
<thead>
<tr>
<th></th>
<th>BI</th>
<th>RC</th>
<th>OS</th>
<th>PV</th>
<th>PI</th>
<th>IC</th>
<th>IH</th>
<th>SI</th>
<th>Alph</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral intentions (BI)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.94</td>
</tr>
<tr>
<td>Resistance to change (RC)</td>
<td>0.73*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.84</td>
</tr>
<tr>
<td>Overall satisfaction (OS)</td>
<td></td>
<td>0.69*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.94</td>
</tr>
<tr>
<td>Perceived value (PV)</td>
<td>0.66*</td>
<td></td>
<td>0.65*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.88</td>
</tr>
<tr>
<td>Position involvement (PI)</td>
<td>0.44*</td>
<td>0.62*</td>
<td>0.48*</td>
<td>0.69*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>0.89</td>
</tr>
<tr>
<td>Informational complexity (IC)</td>
<td>0.41*</td>
<td>0.16*</td>
<td>0.42*</td>
<td>0.30*</td>
<td>-0.01</td>
<td>1</td>
<td></td>
<td></td>
<td>0.73</td>
</tr>
<tr>
<td>Importance-Hedonism (IH)</td>
<td>0.29*</td>
<td>0.14*</td>
<td>0.32*</td>
<td>0.30*</td>
<td>0.12</td>
<td>0.52*</td>
<td>1</td>
<td></td>
<td>0.86</td>
</tr>
<tr>
<td>Sign (SI)</td>
<td>-0.06</td>
<td>0.11</td>
<td>0.02</td>
<td>0.14*</td>
<td>0.35*</td>
<td>-0.07</td>
<td>0.38*</td>
<td>1</td>
<td>0.95</td>
</tr>
</tbody>
</table>

*p<0.01, **p<0.05
centers’ members may be somewhat of a further limitation of this study and this can be overcome with the administration of the scale on larger sample groups. The future studies that will use different and larger samples can further contribute to the validity and reliability of the scale.

REFERENCES