



Adaptation of Sports Involvement Scale to Turkish Culture: A Validity and Reliability Study in Football Spectators

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ABSTRACT

The Psychological Continuum Model (PCM) represents a gradual change of attitude formation. The continuum in the model is divided into four stages (Awareness, Attraction, Attachment, and Allegiance), which represent the formation of attitudes and involvement levels in increasingly stronger degrees towards the sport object (Funk & James, 2001). The first aim of the research is to adapt the Sports Involvement staging tool/scale developed for sports spectators by Doyle et al. (2013) within the scope of PCM for Turkish culture. The second aim of the research is to examine the differences in resistance to change levels of sports spectators regarding their involvement profiles. A total of 239 ($\bar{x}_{age} = 37.00 \pm 14.46$) football spectators aged between 18-70 participated in the study [56 female ($\bar{x}_{age} = 31.79 \pm 13.29$) and 183 male ($\bar{x}_{age} = 38.59 \pm 14.47$)]. CFA was performed for adapting the scale. The findings of the Confirmatory Factor Analysis revealed that the Sports Involvement Scale represented its structural validity and psychometric properties as in the original scale (Chi-square/sd = 2.43, $p < 0.01$, RMSEA = 0.078, NNFI = 0.98, SRMR = 0.038, GFI = 0.95). The Cronbach alpha value was checked for the internal consistency of the Emotional Resistance to Change sub-dimension of the Resistance to Change Scale, which was developed by Oreg (2006) and adapted to Turkish culture by Çalışkan (2019), and the value was found to be 0.80. The findings show that the Sports Involvement Scale is a valid and reliable measurement tool for Turkish culture. A statistically significant difference was found in the Resistance to Change values of the participants, depending on their level of sports involvement.

INTRODUCTION

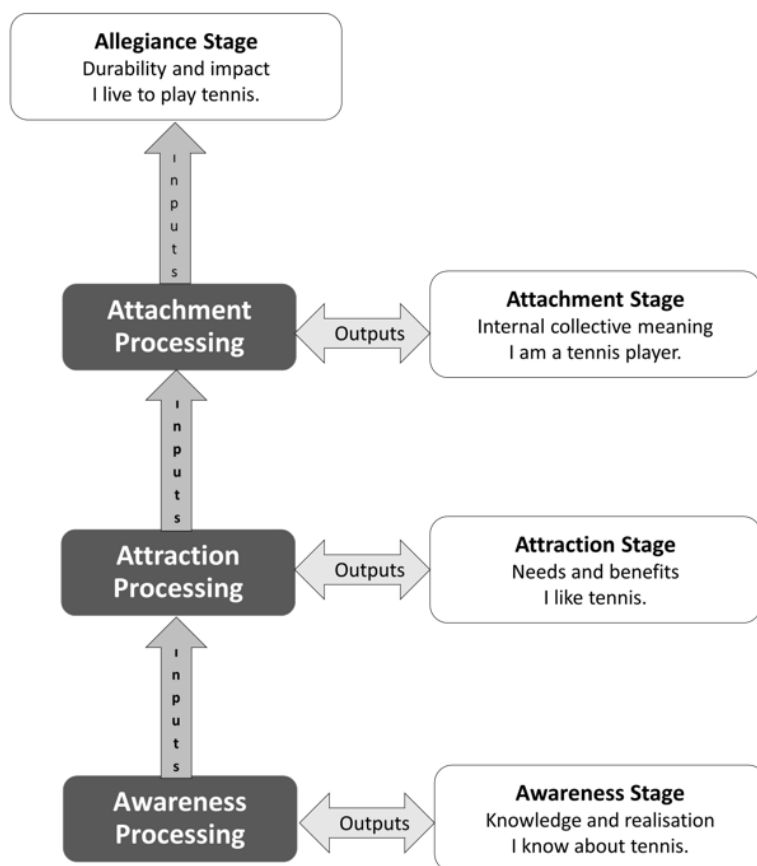
The level of interest in sports teams and following activities for sports teams varies from person to person. This varying level of interest shown towards a sport and sports product is expressed as involvement. Involvement was evaluated by Iwasaki and Havitz (1998) as “the state of motivation, arousal or interest towards a recreational activity or product for users” (p. 260). While the interest of some people in sports competitions is to follow them as long as they come across them on television, for some, it is to watch every match and even to plan their life according to the dates and times of the competition. These different approaches of people to sports competitions are defined by Pooley (1978) as a continuum where there are spectators at one extreme and fans at the other, depending on their level of interest in sports. While this continuity defines sports spectators as individuals who observe a match and forget quickly, it defines supporters as individuals who have high emotional intensity towards the team and maintain their interest during the day or at intervals to increase this emotional intensity. According to this statement, individuals feel a sense of personal achievement when the team wins and a sense of personal loss when the team loses due to their strong bond with the sports team. The level of this feeling is affected by the individual's psychological involvement in that sport or activity.

The first studies conducted in sports evaluated the extent to which a person's attitude towards a sports object is generally positive or negative and the effect of this attitude on emotions and behaviors (Mahony & Howard, 1998; Mahony & Moorman, 1999). On the other hand, the first research on loyalty in consumer behavior is based on competition participation numbers to measure the behavioral component of loyalty (Hansen & Gauthier, 1989). The attitudinal component of fan loyalty has been largely overlooked, as it is relatively easy to consider engagement numbers when measuring behavior. However, by emphasizing the psychological aspect of involvement in sports, researchers have discovered that the phenomenon of loyalty is more complex than is possible, as well as the need for cognitive, emotional, and behavioral factors to explain brand loyalty for consumer products (Gladden & Funk, 2001; Hill & Green, 2000). In their study with professional baseball fans, Funk and Pastore (2000) observed that commitment was highly correlated with behavior and behavioral intention. Similarly, Hill and Green (2000) observed that team commitment and psychological involvement explain future participation intentions for rugby fans. This situation has revealed the importance of attitudinal research to understand how the attitudes and ascribed importance towards the sport object by the individual affect the cognitive process and

behavior. In line with all these studies, Funk and James (2001) developed the Psychological Continuum Model (PCM) by reviewing relevant studies in the literature and taking into account the situation that creates a temporal difference in the attitude of an individual toward his/her relationship with a sport or team.

Figure 1

Psychological Continuum Model Stages



Note. From Funk (2008). *Consumer behavior in sport and events: Marketing action*. Oxford: Elsevier

PCM is a stage-based attitude determination tool that determines the individual's psychological connection with an object, subject, or activity and explains social psychological processes. Continuum in the model refers to an individual's increasingly stronger degree of attitude formation and involvement towards an object, subject, or activity. The current continuum is divided into four stages (Awareness, Attraction, Attachment, and Allegiance) in the model (Beaton et al., 2011; Funk & James, 2001). The first stage, "Awareness," refers to awareness of an object, subject, or activity. Merely knowing or recognizing a sport indicates that the individual is in the awareness stage. For example, if the individual says, "I know about tennis," or is conscious of it, it is an indication that he is in the "Awareness" stage. The second stage is the "Attraction" stage. The attraction stage represents the beginning of positive emotional interest (like love, etc.) towards a sport. If the individual says "I love tennis" or is

aware of their positive emotional interest, it indicates that they are in the "Attraction" stage. "Attachment," which is another stage, refers to the internal integration of the individual with the sports branch/object or activity. Defining himself as a "tennis player" shows he is integrated with that sport. The last stage, "Allegiance," refers to maintaining dedication and commitment to the sporting object or activity. Individuals in the Allegiance stage act according to the sports object or activity while organizing their daily lives. For example, an individual's statement, "I live for tennis," or organizing his life according to tennis indicates that he is in the Allegiance stage. The continuum framework in the model encompasses both internal factors, such as consumers' psychological needs, and external factors, such as socializing factors, to explain consumers' cognitions, preferences, and behaviors. The factors that determine consumer behavior in sports and events emerge by evaluating the internal (i.e. personal and psychological) and external (i.e., environmental) inputs as a whole. This is achieved through three types of assessment: cognitive, emotional, and behavioral. For example, knowledge about a sport or activity object stimulates cognitive evaluation, affecting cognition. This cognitive effect also initiates emotional and behavioral evaluations. In other words, the formation of an attitude towards a sporting object or activity occurs through the evaluation of environmental, psychological, and personal inputs. This evaluation reveals the psychological and behavioral consequences of the sports object or activity in consumer behavior. Psychological consequences indicate the formation of an attitude toward the object or experience of sports. As cognitive thoughts affect emotions, these emotions influence behavioral intention and actual behavior. Behavioral outcomes indicate an individual's observable response to a particular sporting object. These responses include purchasing behavior, post-purchase activities, and post-experience behavior. In summary, as shown in Figure 1, there is horizontal and vertical mobility in PCM, depending on the effect and size of internal and external inputs. While the psychological and behavioral outcomes differ in each stage, at the same time, as involvement increases, internal and cognitive development increases. In addition, as attitudes develop and fluctuate over time, a movement occurs along the continuum (Funk & James, 2006). Although this mobility differs according to the individual is stage, it can be downward (from the Allegiance stage to the Awareness stage) or upward (from the Awareness stage to the Allegiance stage). The Psychological Continuum Model also reveals these transitions between the stages and the commitment in each stage in line with the level of interest in sports. Because sports are unpredictable, dynamic, and variable in nature, such as the unpredictability of the outcome in sports competitions, and that the course of the competition can change instantaneously or that unexpected developments

can occur during the competition, determining the level of involvement of the sports spectators is extra important in terms of understanding and directing the level of involvement in the process. Evaluating the involvement in sports objects using more than one dimension is important in terms of determining the internal and external factors that affect the level of involvement, as well as understanding the behavioral and cognitive outcomes of the effects of these elements in the sports audience (Havitz & Dimanche, 1997; Kapferer & Laurent, 1993). To explain this with an example, although two people from the Sports Involvement Scale had the same overall score, their level of involvement towards the team may have been affected by different dimensions. The first person who values hedonistic benefits more gets a higher score on the Pleasure sub-dimension. In contrast, the second person with a high score on the Centrality and Sign sub-dimensions may score lower on the pleasure sub-dimension because the team's performance is low (For example, the team is about to be relegated to a lower league). Therefore, using a profile-based system rather than a one-dimensional approach provides the opportunity to explain the theoretical meaning inherent in each dimension. Considering the efforts of the clubs not to lose their supporters, especially in the field of sports marketing, and the strategies they have developed on how to act about the fans in the future; It is also important to determine the level of involvement and profiling of fans towards their teams. PCM is of great importance in that it provides an opportunity for the supporters, i.e., the market, to be segmented and to develop marketing plans suitable for these market segments (using marketing mix components by the appropriate segments). For this reason, understanding the Psychological Continuum Model and determining what stage the individual is in, in terms of the level of involvement in line with the model, will help create a prediction, especially for profit-oriented sports organizations.

In previous studies on the Sports Involvement Scale, only the English version of the scale was expressed as a limitation, and the importance of conducting intercultural tests with different sample groups was mentioned (Beaton et al., 2011; Doyle et al., 2013). Tests with different cultures and racial groups are valuable in demonstrating the scale's global validity and comparing it with adaptations to be made in different cultures. Also, Beaton et al. (2011) stated that translating the scale into different languages would benefit its use as an alternative in international studies and multicultural (racial) countries. The current study expands the scale by testing it with different racial and cultural structures and testing it with different sample groups. Although several scales were developed in the Turkish language or adapted into Turkish to measure the fans' love for their team and their hatred for their arch-rival (Özsoy & Karlı, 2022), the psychological attachment of the fans to their team (Bozgeyikli et al., 2018),

the level of identification of the fans with their team (Günay & Tiryaki, 2003) and the level of fanaticism of football spectators (Taşmektepligil et al., 2015), there is no measurement tool that can be used to evaluate the involvement levels of sports spectators towards the sports teams they support. Such a deficiency in the studies and the fact that this deficiency has limited the relevant studies has increased the importance of adapting the Sports Involvement Scale developed by Doyle et al. (2013) into Turkish and bringing it into the literature. From this point of view, the first aim of this research is to adapt the Sports Involvement Scale, an interest-based classification model, for Turkish culture. The second aim of the research is to examine the differences resistance to change sports spectators' levels regarding their involvement profiles.

METHODS

Study Group

Football is one of our country's most common and watched sports. While determining the population of this research, the population was limited to football fans, considering the interest and viewing level of football compared to other sports branches in our country. Within the scope of the research, literature was examined to determine the sample size to represent the main population in question. Tabachnick and Fidell (2007) stated that the sample size can be calculated by adding 50 to eight times the total number of expressions, while the International Test Commission (2018) stated that the sample size that can adequately reveal the psychometric structure of a scale is at least 200. In adaptation studies, many characteristics such as age range, education level, and gender of the sample group are expected to be the same as the target group of the original scale (Çapık et al., 2018; Erkuş, 2007). For this reason, the original study was taken to determine the relevant sample group for the current study. The population of the current research consists of fans of a football team over the age of 18, who have a minimum undergraduate degree in education, and who are fans of a football team above.

In this direction, 280 football spectators were reached as a sample from the population using the criterion sampling method, which is one of the purposive sampling types, but, because of not meeting the participation criteria and inconsistent responses, 41 of the participants were excluded from the analysis. The data obtained from the remaining 239 participants were analyzed. In this context, a total of 239 ($\bar{x}_{\text{age}} = 37.00 \pm 14.46$) football spectators, 56 females ($\bar{x}_{\text{age}} = 31.79 \pm 13.29$) and 183 males ($\bar{x}_{\text{age}} = 38.59 \pm 14.47$) between the ages of 18-70, who have minimum an undergraduate degree were included in the research.

Data Collection

In order to test the validity and reliability of the Sports Involvement Scale in Turkish culture and to determine the level of interest of football spectators to sports teams, permission was obtained from the scale owners via e-mail. Within the scope of the research, the application process has been started to translate the original English form of the Sports Involvement Scale into Turkish. The most crucial stage of adaptation studies is translation from source to the target language. For this reason, the standard procedure Brislin (1986) recommended for the translation-back translation method was followed. The translation of the scale from English to Turkish was carried out by three faculty members with field knowledge and English language proficiency. Then, these three translated texts, together with the original text of the scale, were given to two experts in the field of psychological counseling and sports sciences, and they were asked to choose the most appropriate expressions from the expressions in the translations. After this process, the Sports Involvement Scale was translated into Turkish and took its final form. This Turkish scale was given to two referees who are experts in the field of English, and it was translated into English again. and it was decided by making comparisons that there is a semantic integrity between the original text of the scale and the translated text from Turkish. After the translation processes, a pilot study was conducted to determine the scale's language intelligibility; for this purpose, it was applied to 50 football spectators. In line with the feedback received, no criticism/suggestion emerged, language intelligibility was found to be good, and the Turkish version of the scale took its final form.

Data Collection Tools

Ethics committee approval was obtained for this study from Marmara University Institute of Health Sciences with the number 05 on 17.01.2022 within the scope of doctoral thesis. In order to collect the data in the research, the participants were given the Personal Information Form, the Sports Involvement Scale, and the Resistance to Change Scale-Emotional Resistance subscale and an information note was added regarding the content and purpose of the research. Within the scope of the research, the *Personal Information Form* was used to gather the personal information of the participants (age, gender, education level, whether they support a specific football team).

The Sports Involvement Scale developed by Doyle et al. (2013), based on the research of Beaton et al. (2009), was used to determine the level of involvement of the participants in the sports teams they support. This scale was developed to measure the level of interest of

sports spectators towards the teams they support. The scale has three sub-dimensions "Pleasure," "Sign" and "Centrality," and each sub-dimension consists of three items, a total of nine items. All items are positive items. Pleasure sub-dimension measures sports spectators' enjoyment and satisfaction from the course of the competition. The Sign sub-dimension measures the ability of the sports spectators to express themselves while watching the match of the team they support or the symbolic value that the team's course expresses to them. The sub-dimension of Centrality represents the place of the sports fans in the life of the competitions of the team they support and their centrality in their lives, and it measures the extent to which sports fans organize their lives to watch the team competitions they support. The average scores obtained from each sub-dimension of the scale are again classified separately for each sub-dimension [Low (< 4.5), Medium (4.5-5.65), and High (> 5.65)], creating an individual involvement profile for each respondent. According to the combination of scores (Low, medium, and high) from each sub-dimension, 27 possible involvement profiles emerge (Doyle et al., 2013). In line with the emerging profiles, it can be determined at which stage the individual is in PCM (Awareness, Attraction, Attachment, and Allegiance). Cronbach's alpha values of sub-dimensions ranged from .82 to .86. The scale is a 7-point Likert scale (1 = Strongly Disagree, 7 = Strongly Agree).

Finally, the Resistance to Change Scale developed by Oreg (2006) and adapted to Turkish culture by Çalışkan (2019) was given to the participants to measure their attitudes toward change and to test the criterion validity of the Sports Involvement Scale. The scale consists of three sub-dimensions: "Cognitive Resistance," "Behavioral Resistance," and "Emotional Resistance." Each sub-dimension consists of five items, four items of the "Emotional Resistance" sub-dimension we used within the scope of the research are positive and 1 item is negative. Emotional Resilience sub-dimension is concerned with how individuals feel and think about change. For this reason, only the "Emotional Resistance" sub-dimension was used to test the criterion validity within the scope of the research. The scale is five point Likert type (1 = Strongly Disagree, 5 = Strongly Agree).

Data Analysis

During the data analysis process, 41 data belonging to the participants who did not have the condition of being a supporter but filled out the questionnaire and who were determined as extreme value as a result of the extreme value analysis were excluded from the analysis, and statistical analyzes were applied on the remaining 239 participants out of 280 people.

In addition to descriptive statistics (frequency, percentage, mean, and standard deviation), confirmatory factor analysis was performed to test whether the scale preserves its psychometric structure with three factors. Cronbach's internal consistency calculation was conducted to determine the internal consistency coefficients of the items belonging to the dimensions, and AVE and CR values were calculated to evaluate the convergent validity of the scale. Furthermore, a non-parametric analysis of variance (Kruskal Wallis Test) was performed to determine the differences in the resistance to change levels of the spectators according to their sports involvement profiles. Lisrel 8.80 and SPSS 21 programs were used for the analysis.

RESULTS

The findings obtained from the analyses made in adapting the Sports Involvement Scale to Turkish culture are presented below, respectively.

Descriptive Statistics

Descriptive statistical findings obtained from the study participants are presented in Table 1. According to Table 1, the sample consists of 239 ($\bar{x}_{age} = 37.00 \pm 14.46$) football fans, 56 of whom are female ($\bar{x}_{age} = 31.79 \pm 13.29$) and 183 are male ($\bar{x}_{age} = 38.59 \pm 14.47$). While the ages of the female participants range between 18 to 56, and the ages of the male participants range between 18 and 70. The mean age of the participants is 37.00 ± 14.46 . Undergraduate students represent 36.8% of the current sample, while participants with an undergraduate degree represent 42.3%. Participants with a master's degree represent 15.1% of the sample, and finally, participants with a PhD degree represent 5.9%.

Table 1
Findings of Descriptive Statistics

GENDER	N	Age _{mean}	sd	Age _{min}	Age _{max}
Female	56	31.79	13.29	18	58
Male	183	38.59	14.47	18	70
Total	239	37.00	14.46	18	70

EDUCATIONAL LEVEL	N	%	Cumulative Percentage
Undergraduate student	88	36.8	36.8
Undergraduate Degree	101	42.3	79.1
Master's Degree	36	15.1	94.1
PhD	14	5.9	100
Total	239	100	100

Findings of the Factor Analysis

Findings of the model fit and construct validity analyses regarding the scale's validity are presented. Figure 2 shows the results of the Confirmatory Factor Analysis (CFA) conducted on the data obtained from 239 participants using the adapted version of the Sports Involvement Scale. As shown in Table 2, findings indicate that the values regarding model fit indices fall within acceptable fit ranges (chi-square/df = 2.43, $p < 0.01$, RMSEA = 0.078, NNFI = 0.98, SRMR = 0.038, GFI = 0.95).

Figure 2
Sub-Dimensions of the Sports Involvement Scale Path Chart

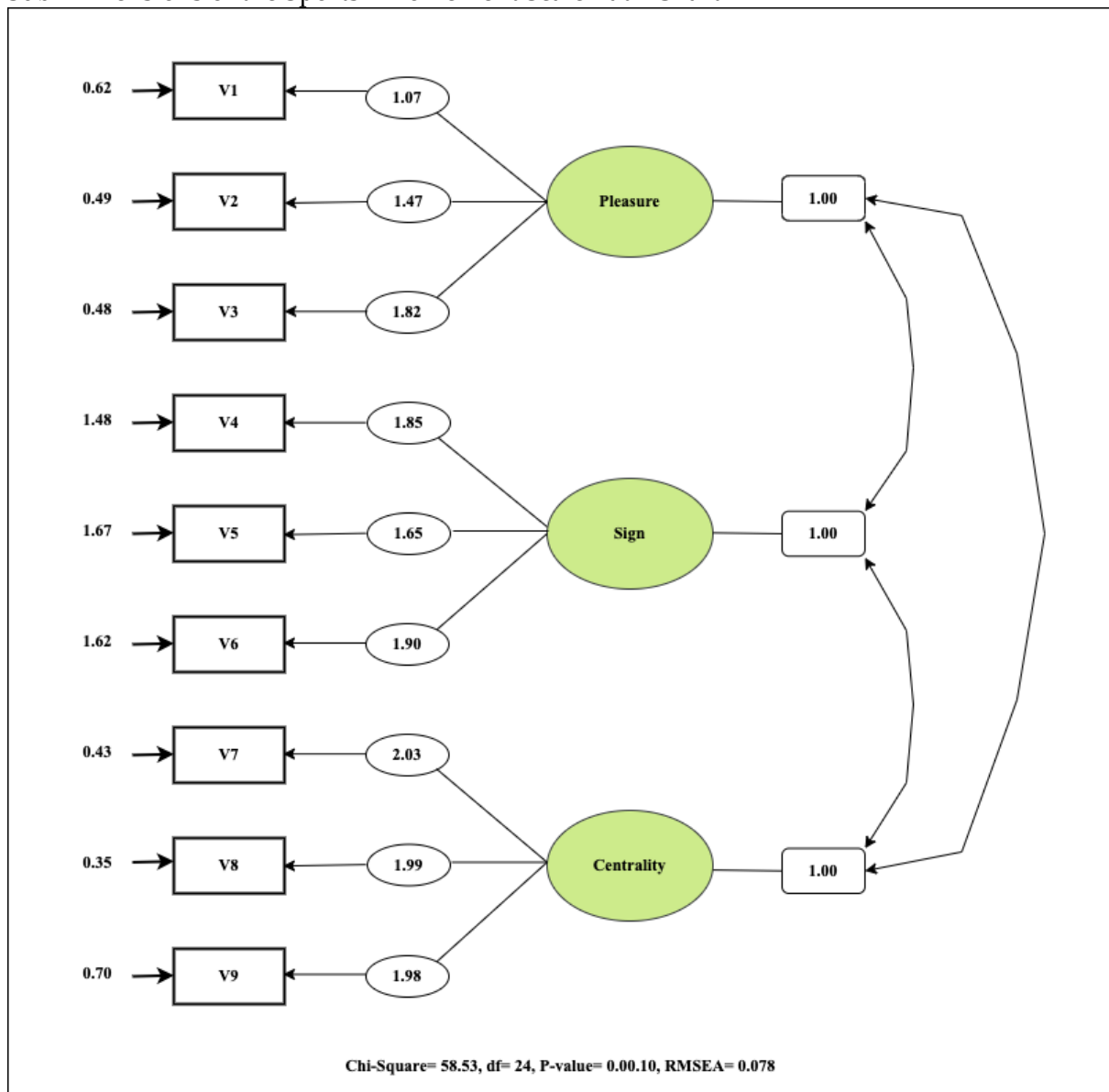


Table 2
Model Fit Criteria Used as a Reference for the Model in the Study

Fit Indices	Excellent Fit Threshold	Acceptable Fit Threshold
¹ χ^2/sd	$0 \leq \chi^2/sd \leq 2$	$2 \leq \chi^2/sd \leq 4$
² RMSEA	$0 \leq RMSEA \leq 0.05$	$0.05 \leq RMSEA \leq 0.08$
² NNFI	$0.95 \leq NNFI \leq 1$	$0.90 \leq NNFI \leq 0.95$
³ SRMR	$0 \leq SRMR \leq 0.05$	$0.05 \leq SRMR \leq 0.10$
² GFI	$0.95 \leq GFI \leq 1$	$0.90 \leq GFI \leq 0.95$

Note: ¹Schermelleh Engel et al. (2003); ²Hu & Bentler (1999); ³Browne & Cudeck (1992).

Reliability Findings

In order to determine the reliability of the scale, internal consistency coefficient, factor loadings, and AVE values are presented, as well as the results of the Kruskal-Wallis test, which was performed to determine the statistical significance of the difference between groups. According to the findings shown in Table 3, the factor loadings of the Sports Involvement Scale vary between 0.79 and 0.96. Based on the findings of the reliability analysis, the internal consistency coefficients of the sub-dimensions were determined as 0.91, 0.84, and 0.94 for the Pleasure, Sign, and Centrality sub-dimensions, respectively. The AVE values for all sub-dimensions were determined to have been above 0.50 for convergent validity. Regarding construct reliability, the CR values for the respective sub-dimensions were all determined as above 0.80 (Yaşlıoğlu, 2017).

Table 3
Sports Involvement Scale Sub-dimensions, Dimension Items, t Values, Error Variances, Factor Loadings, Cronbach's Internal Consistency Coefficient, and CR-AVE Values

Scale Sub-dimensions	Item	t values	Error Variances	Factor Loadings	Cronbach's Alpha	CR	AVE
Pleasure	1	18.45	0.15	0.92	0.91	0.94	0.85
	2	17.86	0.18	0.90			
	3	18.93	0.13	0.94			
Sign	4	14.43	0.35	0.81	0.84	0.85	0.66
	5	13.97	0.38	0.79			
	6	15.09	0.31	0.83			
Centrality	7	19.69	0.09	0.95	0.94	0.96	0.89
	8	19.98	0.08	0.96			
	9	18.59	0.15	0.92			

Table 4 shows the profiles of the participants in line with the Sports Involvement Scale and their average scores for both scales. The average scores obtained from each sub-dimension of the Sports Involvement Scale increased in each stage as participants transitioned from the Awareness stage to the Allegiance stage. Similarly, average scores obtained from the Resistance to Change subscale increased in each stage as participants transitioned from the Awareness stage to the Allegiance stage.

Table 4

Mean Values of the Sports Involvement Scale Sub-dimensions and Resistance to Change Subscale According to the Involvement Levels of the Participants

Sub-dimensions	Involvement Level	N	Mean	Median	sd
Pleasure	Awareness	69	3.08	3.33	1.15
	Attraction	78	5.69	5.67	0.80
	Attachment	59	5.96	6.33	1.43
	Allegiance	33	6.83	7.00	0.40
Sign	Awareness	69	2.03	1.67	1.07
	Attraction	78	2.68	3.00	1.13
	Attachment	59	5.16	5.33	1.11
	Allegiance	33	6.38	6.33	0.64
Centrality	Awareness	69	1.31	1.00	0.59
	Attraction	78	1.98	2.00	1.03
	Attachment	59	4.02	4.00	1.50
	Allegiance	33	6.36	6.33	0.68
Resistance to Change	Awareness	69	2.77	2.60	0.88
	Attraction	78	3.41	3.30	1.05
	Attachment	59	4.11	4.20	0.85
	Allegiance	33	4.44	4.20	0.53

Since the data were not distributed normally, non-parametric tests were conducted to examine whether there were any differences between groups. According to the findings of the Kruskal-Wallis test, which was performed to determine whether there were differences in the participants' scores on the sub-dimensions of the Sports Involvement Scale and the Emotional Resistance to Change subscale depending on their involvement levels, statistically significant differences were found in participants' Resistance to Change levels and participants' scores on the Pleasure, Sign and Centrality sub-dimensions depending on their sports involvement levels ($p < 0.01$, Table 5).

Table 5

Comparison of Participants' Pleasure, Sign, Centrality, and Resistance to Change Scores in Terms of Involvement Levels

Sub-dimensions	Involvement Level	N	Mean Rank	Chi-square	df	p	Groups with Difference
Pleasure	Awareness	69	38.96	156.897	3	0.000*	1-2, 1-3, 1-4, 2-4, 3-4
	Attraction	78	132.58				
	Attachment	59	155.03				
	Allegiance	33	197.08				
	Total	239					
Sign	Awareness	69	63.09	162.906	3	0.000*	1-3, 1-4, 2-3, 2-4
	Attraction	78	88.35				
	Attachment	59	176.41				
	Allegiance	33	212.95				
	Total	239					
Centrality	Awareness	69	60.69	159.557	3	0.000*	1-2, 1-3, 1-4, 2-3, 2-4, 3-4
	Attraction	78	95.43				
	Attachment	59	166.89				
	Allegiance	33	217.70				
	Total	239					
Resistance to Change	Awareness	69	71.02	76.847	3	0.000*	1-2, 1-3, 1-4, 2-3, 2-4
	Attraction	78	110.90				
	Attachment	59	156.33				
	Allegiance	33	178.95				
	Total	239					

* $p < 0.01$

Mann Whitney U tests with Bonferroni correction were conducted to make pairwise comparisons and to determine the differences in the Resistance to Change scores between involvement level groups in detail. Statistically significant differences were found between all groups except between Attachment and Allegiance involvement level groups. Differences between those other profile groups showed that the resistance to change levels favor groups with higher sports involvement profiles (Table 6).

Table 6

Pairwise Comparisons of Participants' Resistance to Change Levels According to Their Involvement Levels

Group Pairs	Mean Rank Difference	Std. Error	Adj. Sig. (p)
Awareness-Attachment	-85.309	12.213	0.000*
Awareness-Allegiance	-107.933	14.577	0.000*
Attraction-Allegiance	-68.051	14.303	0.000*
Attraction-Attachment	-45.427	11.884	0.001*
Awareness-Attraction	-39.882	11.383	0.003*
Attachment-Allegiance	-22.624	14.972	0.785

* $p < 0.01$

DISCUSSION

The aim of this study was to adapt the Sports Involvement Scale, which was developed by Doyle et al. (2013) for sports spectators based on the study of Beaton et al. (2009) within the scope of PCM and to develop a measurement tool that will determine the interest levels of football spectators towards sports teams. CFA was performed to evaluate the structure and psychometric properties of the scale in its adapted language. When evaluating model fit, a Chi-square/sd value less than four and RMSEA value less than 0.08 indicate acceptable fit, an NNFI value greater than 0.95, an SRMR value less than 0.05, and an GFI value greater than 0.95 indicate excellent fit (Browne & Cudeck, 1992; Hu & Bentler, 1999; Schermelleh Engel et al., 2003). Evaluating the findings related to the model fit obtained by factor analysis (chi-square/sd = 2.43, $p < 0.01$, RMSEA = 0.078, NNFI = 0.98, SRMR = 0.038, GFI = 0.95), it is possible to say that the model fit values are at the level of excellent and good fit when compared to the values accepted as criteria (Browne & Cudeck, 1992; Hu & Bentler, 1999; Schermelleh Engel et al., 2003). In addition, findings indicate that every item under each sub-dimension of the scale has very high factor loadings (0.79-0.96). As the factor loading of an item increases, the item's explanation rate of the related sub-dimension increases. A value over 0.60 indicates that the related item has a high factor loading (Büyüköztürk, 2002). As for the convergent validity, Average variance extracted (AVE) is seen as an essential criterion in determining the convergent validity of the scale in scale adaptation studies. The construct reliability of the scale was evaluated with CR and its internal consistency with Cronbach's alpha coefficient. (Hair et al., 2011). The AVE value is expected to be above 0.50, and the CR values to be higher than 0.70. As seen in Table 3, AVE values are above 0.66, and CR values are above 0.85. This indicates that the scale meets the expected criteria for convergent validity.

The findings regarding the construct validity obtained from the study are in line with other studies conducted with different sample groups [sports participants (Beaton, 2009, 2011), exercise participants (Beaton et al., 2009; Funk et al., 2011) and sports fans (Doyle et al., 2013)], showing that the original three-factor structure of the model is preserved.

A Cronbach Alpha coefficient between 0.80 and 1 indicates that the scale has high reliability (Alpar, 2000; Büyüköztürk, 2014; Tavşancıl, 2014). In other words, each item in the scale explains the structure for the relevant sub-dimension or concept to a high degree of reliability (Alpar, 2000; Büyüköztürk, 2002, 2014; Tavşancıl, 2014). According to the findings of this study, Cronbach's Alpha values for the sub-dimensions of the Sports Involvement Scale were calculated as 0.84, 0.91, and 0.94 for Sign, Pleasure, and Centrality, respectively. These

values show that the Sports Involvement Scale is a reliable measurement tool for Turkish culture (Alpar, 2000; Browne & Cudeck, 1992; Hu & Bentler, 1999). Similarly, in the study of Doyle et al. (2013), two different sample groups were used, and the Cronbach's Alpha values obtained from the first group were determined as 0.76, 0.84, and 0.92 for Sign, Pleasure, and Centrality, respectively. In the second sample group of their study, alpha coefficients for Sign, Pleasure, and Centrality were determined as 0.81, 0.86, and 0.89, respectively. Compared to existing studies, it is seen that the Sports Involvement Scale adapted to Turkish culture has very high-reliability findings for each sub-dimension.

The Emotional Resistance to Change scale was utilized to test the criterion validity of the findings obtained within the research scope. The predicted result was that the Emotional Resistance to Change scores would increase as the PCM stages moved from the Awareness stage to the Allegiance stage. The findings, which supported our prediction, showed statistically significant differences in the emotional resistance to change levels at each stage of PCM ($p < 0.05$). It supported the assumption that the groups that emerged within the PCM framework would have increasingly positive attitudes toward the team they support as they progressed from the Awareness stage to the Allegiance stage under the system in the PCM. Statistical findings obtained from sport spectators' emotional resistance to change and the PCM stage show that the resistance attitude gets stronger with the transition from the Awareness stage to the Attraction stage, from the Attraction stage to the Attachment stage, and from the Attachment stage to the Allegiance stage. While the current findings are in line with the original study (Doyle et al., 2013), they also support other studies on the relationship between PCM and resistance to change (Beaton et al., 2009, 2011; Funk et al., 2011).

In previous studies concerning the PCM framework, researchers suggested that new studies be expanded with different samples (Funk et al., 2011; Stewart et al., 2003), but most of the studies focused on sports participants or exercise participants (Beaton et al., 2009; Funk et al., 2011; Iwasaki & Havitz, 2004). This research both brought a new scale/staging tool to the national literature and supported the international literature within the scope of sports spectators. On the other hand, as stated by Stewart et al. (2003), sports organizations can use staging tools to determine their marketing strategies, build loyal spectator bases, and increase revenue. Marketing strategies targeted for individuals in each stage can be designed based on meeting the needs and wishes of these individuals. These strategies determined through PCM can be applied to move the spectator to the next stage in PCM (Beaton et al., 2011). In this context, the research contributes to the marketing literature. For example, for football spectators who are in the "Awareness" stage, football matches can be combined with the

element of entertainment. Using the event with the right marketing strategy and considering other factors affecting participation can enable individuals to pass from the Awareness stage to the Attraction stage. Similarly, digital TV series and sports broadcast platforms can combine their marketing strategies. A one-month free sports package membership can be given to consumers who purchase a subscription from the TV series platform. In this way, if a sports spectator at the "Awareness" stage evaluates this package, watches and enjoys the competitions, both sports consumption level and interest towards the team will increase. Similarly, for a fan in the "Allegiance" stage to maintain his/her loyalty, free tickets can be given to the competitions in different sports branches of the same team's club when purchasing combined tickets or licensed sports products. In this way, "Awareness" is created for a different sport with fewer spectators, and loyalty to the sports team makes it sustainable. Studies show that high-cost products such as licensed products or combined tickets increase resistance to switching to another team and are an influential factor in determining brand loyalty (Dick & Basu, 1994; Göksel et al., 2020).

CONCLUSION

The findings show that the Sports Involvement Scale (staging tool) is highly valid and reliable in determining and profiling the involvement levels for sports teams for football spectators, but further research on the subject is essential to support the current findings. In addition to the fact that football is the most widely produced and consumed sport in our country, the fact that only football, that is, a single sport, is included in the research can be considered a limitation. The study sample was limited to football spectators, considering the media interest in football and the rate of viewing in our country. In this context, it can be expanded with different sports branches while also increasing the sample size in future studies. In addition to the variable of emotional resistance to change, which is discussed in the research, the research can be diversified by considering different behavioral and attitudinal variables (Commitment to sports, motivation, etc.) in future studies.

In conclusion, this study showed that the Sports Involvement Scale is a valid and reliable measurement tool for Turkish culture and that staging (Awareness, Attraction, Attachment, and Allegiance stages) can be performed for football spectators in line with PCM, thus, making it possible for sports clubs to stage their fans in terms of sports involvement and to create marketing plans by putting forward appropriate marketing strategies based on the product, that is, the sports team, they have.

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Authors' contributions

First and second author contributed to conceptualization of the research, literature review, data collection, research outline, determining the research method, collecting the data, evaluating the analysis of the data, and critically interpreting the final draft. Third author contributed to performing data analysis and interpreting findings, critical interpretation of final draft.

Conflict of interest declaration

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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