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Adaptation of Sport Event Image Scale to Turkish Culture: A Validity and Reliability Study

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ABSTRACT

The purpose of this study was to adapt the Turkish version of the "Sport Event Image Scale" (SEIS) developed by Kaplanidou and Vogt (2007) and to test its validity and reliability. 418 voluntary runners aged 18 years and above who agreed to attend the study and who ran in the 5km, 10km, and 21km competition routes in the "Gökova Half Marathon" event were the sample of the study. In the first stage of the adaptation process, the committee approach was utilized for language equivalence. Then, the pilot study was performed with 54 athletes who participated in the same event in the previous year via e-mail to test the comprehensibility of the scale items. In the next stage, to test the construct validity Confirmatory Factor Analysis was used. In addition, reliability was conducted with test-retest and internal consistency analysis. The CFA findings supported the single-factor structure of the scale in line with the original version (cmin/df = 3.441, RMSEA = 0.077, RMR = 0.007, GFI = 0.976, NFI = 0.994, CFI = 0.996, RFI = 0.976). The internal consistency coefficient value was 0.976 and the test-retest result was 0.901. As a result, according to the findings, it is possible to say that the adapted Turkish version of the SEIS preserved the psychometric properties, which can be used as a valid and reliable scale in future research studies that will be conducted on the Turkish population.

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INTRODUCTION

Sports are the most basic physical activity; hundreds of thousands of people around the world participate in different sports activities and events every single day. This shows that sports have been intertwined with human life. Since the development of the media sector, these activities and events have reached millions of people through mass media, and this situation has attracted the attention of many investors to sports activities and events (Dever & Sözen, 2021). Today, this interest contributes to developing sport as an organized commercial activity (Khan et al., 2016).

Sports is a priority area for corporate companies that prefer to sponsor due to its ability to reach and influence society (Walraven et al., 2016). Sponsorship activities have a critical role in the growth and development of companies. As one of the marketing mix elements, the sponsorship serves to create public opinion, improve the brand image, enhance the brand communication, and increase the brand awareness of consumers (Keller, 2003).

In general, a brand can be defined as a name or sign that guarantees the authenticity of a product, an identity embedded in a product that differentiates it, a strong position in the minds of consumers, a trustworthy promise, a power that influences markets, benefits or values offered to consumers, a name that can create a community around these values, a name that creates desire or loyalty and makes you forget the price, a name that drives respect, love or loyalty (Kapferer, 2012). Similar to the definitions mentioned, brand is the distinctive name/symbol used to identify the goods/services of one/group of sellers and to differentiate that goods/services from competitors (Aaker, 2009; Kotler, 2002). It is stated that sport events can be considered as a brand in their own context (Lee & Cho, 2009). In this sense, sports events, just like brands, want to establish a connection with participants by presenting distinctive features specific to the event and using the event name, logo, or slogan for this purpose (Chalip & Costa, 2005). This connection with participants can be an emotional, historical, social, organizational, or physical environment of the event, event type (e.g., adventure sports, extreme sports, individual sports, team sports, etc.), and the satisfaction it creates (Kaplanidou, 2010). The total interpretation of these qualitative meanings or associations attributed to the event by consumers is considered the image of the event (Gwinner, 1997; Gwinner et al., 2009).

Sports event image is the total of cognitive (such as the organization of the event and the characteristics of its physical environment) and emotional (the evaluation of the event by

the participant) images that contribute to the sportive competitions it hosts (Baloğlu & McCleary, 1999). Gwinner (1997) and Gwinner (2013) suggested that event type (sport, music, art, festival, etc.), event characteristics (professional-amateur, size, location, etc.), and individual factors (meanings, historical connections, etc.) may be effective on event image. The type of participants can also influence the event image. Competitive sports participants tend to associate their emotions with the physical settings (such as facilities and equipment) where the competitions will be held and with the quality organisation. In contrast, non-competitive sports participants (spectators) tend to associate their emotions with the physical environment, location, and social aspects of the event (Hallmann et al., 2010). Kaplanidou (2007), found that athletes relate to the image in terms of the organization of the event, its physical setting (such as facilities, and equipments), the type of activity involved, socialization opportunities, satisfaction, and emotional connection, while spectators relate to the physical environment and location (touristic attractions) of the event. This distinction shows that athletes are more likely to attribute emotional and functional meanings to the event (Filo et al., 2008).

Researchers suggest that sport event image is transformed into brand image through sponsorship activities (Dos-Santos et al., 2016; Grohs & Reisinger, 2014; Gwinner, 2005; Gwinner & Eaton, 1999). Big sporting events such as the Olympic Games, World and European Championships, Tour de France, 24H Le Mans have become brands and sponsoring such events affects the sponsors' brand image. Besides, being a sponsor of one of the sport event is an effective way to transfer the messages to different market segments with the help of the special and unique characteristics (e.g. identity, personality, image, sponsor-sponsee fit) of each sports event (Alay, 2008; 2010; Gwinner et al., 2009). Research has shown that consumer loyalty and brand image are positively related to each other (Aicher et al., 2018; Cevallos et al., 2020; Min & Lee, 2022). In particular, participants' previous year's participation and intention to attend the same event for the next year and positive word of mouth to others are related to event image (Koo et al., 2014; Wu & Liu, 2017). Girish and Lee (2019) expressed that brand experience aspects of affective, behavioral, and sensory are positively related to the ultramarathon event image, which can be linked to loyalty. Runners are arguably the most important elements of competitions. The continuity of sports events depends on participation, that is, the presence of runners. The number of runners participating in the sports events affects the recognition, popularity, image, income, and existence of the event in the following years (Ocakoglu, 2020).

Recently, more and more sports events have turned into festivals that encompass cultural and tourism activities (Tiessen-Raaphorst, 2016). Athletes expect a creative atmosphere where they can express themselves more, extra ancillary activities, social interaction and fun. Therefore, the event atmosphere plays a key role in; unique sport experiences, re-participant intent, and positive word-of-mouth (Wang et al., 2018). Consequently, event managers should enrich their ancillary activities and enhance their services with entertainment elements (Karagiorgos et al., 2022). Besides, event organizers and managers are facing an increasingly competitive market and should focus more on differentiating their events from others. Additionally, previous research shows that reducing competition and maintaining and growing the loyal customer base can be achieved by creating events with a positive image (Alexandris, 2016; Koo et al., 2014). Also, it is stated that event personality and image have a positive relationship (Karagorios et al., 2022; Lianopoulos et al., 2021). Considering the increase in the number of sports events worldwide, especially in Türkiye, it has become very important for event organizers to create a satisfied and loyal participant base in order to make the event sustainable in the following years. Knowing the overall image of the sports event will also support event organizers and managers in developing strategies, as it influences many variables such as event personality, distinctiveness, finding the right and appropriate sponsors, creating satisfied and loyal participants through positive word-of-mouth, and intention to participate again.

However, it is seen that sports event image is not sufficiently addressed in Turkish sports literature, and there is no specific measurement tool that can be used in studies to be conducted in this context. When the international literature is examined, very limited research was found regarding sports event image (Girish & Lee, 2019; Huang et al., 2015; Karagiorgos et al., 2022; Kogoya et al., 2022; Koo et al., 2014). It is seen that the only measurement tool is the "Sport Event Image Scale" (SEIS) developed by Kaplanidou and Vogt (2007), which is a 7-point Semantic Differential type and consists of 13 items. This scale assessing event image perceived by athletes, used by the researchers mentioned above, except the original language of English, scale adapted to Chinese, Korean, and Indonesian language.

Considering all these, the purpose of this study is to adapt the SEIS to Turkish culture, which measures the perceived image of a sports event by its participants. In terms of practical value, the adapted scale may help sports organizers and managers assess the image of their events, which can support them in developing strategies to differentiate themselves from the competition by revealing the distinctive features of their events. Besides, the findings of this

adapted scale can also help the likelihood of finding fit-for-purpose sponsors, increasing event awareness, contributing to positive word-of-mouth by building a base of satisfied and loyal participants and sustaining the event in subsequent years.

METHODS

In this study, the validity and reliability of the SEIS for Turkish culture were tested using a survey model based on the quantitative research paradigm. During the scale adaptation process, the steps suggested by Hambleton and Patsula (1999), Brislin (1980) were followed; deciding to develop a new scale or adapt an existing one, obtaining permission from the owner of the scale when the adaptation study is decided, selection of qualified translators, translation of scale items, reviewing the translated version of the scale items and making changes if necessary (translation committee approach for face validity), piloting (testing comprehensibility), conducting validity reliability tests with appropriate statistical methods and reporting of results.

Participant

The population consisted of athletes who participated in the 5km, 10km, and 21km running routes in the "Gökova Half Marathon" event held in the Ula district of Muğla on November 18, 2023. The sample was selected using criterion sampling, which is one of the purposive sampling methods. According to event participation rules, athletes must be over the age of 16 but there were no upper limit of the age. Voluntary runners aged 18 years and above who voluntarily agreed to attend and who completed the "Gökova Half Marathon" event composed the sample of the study. The total registered athletes was 598 for the event; 462 athletes completed the race, and 418 athletes who completed the competition participated (surveyed) in the study (a total of 450 questionnaires were distributed and collected; 418 were fully completed, and the remaining 32 were incomplete/incorrect ones were eliminated from the research).

The study sample is composed of 418 ($\bar{x}_{age}$ = 39.89±19.61) participants, 146 (34.93%) of whom are female ($\bar{x}_{age}$ = 35.68±18.45) and 272 (65.07%) are male ($\bar{x}_{age}$ = 41.13±19.73). Female participants were between 18 and 58 ages, and the male ones between 18 and 67. The mean age of the total participants is 39.89±19.61 (Table 1). Running routes preference of the participants: 5 km represents 99 (23.68%), 10 km represents 187 (44.74%), and 21 km represents 132 (31.58%) as shown in Table 2.

Table 1
Participant Demographics

Gender	N	Age Mean	sd	Age Min	Age Max
Female	146	35.68	18.45	18	58
Male	272	41.13	19.73	18	67
Total	*418*	*39.89*	*19.61*	*18*	*67*

Table 2
Running Route Preference

Running Route Preference	N	%
5 km	99	23.68
10 km	187	44.74
21 km	132	31.58
Total	*418*	*100*

Procedure

Before the scale adaptation process, written permission was obtained from the authors of SEIS. The volunteer participants were informed regarding the purpose of the research, reminded that they had the right to leave from research at any time without giving any reason, and assured of confidentiality.

In psychometric studies conducted by translating a measurement tool prepared for different cultures into other cultures, it is recommended to select experts who are fluent in both the native language of the scale and the language to be translated and to conduct a preliminary application to a group of 50 people who have the power to represent the targeted population (Hambleton & Patsula, 1999). The committee approach to the translation of the scale items aims to reduce the impact of cultural biases inherent to the native language by collaboration and consensus (Martinez et al., 2006; Pan & De La Puente, 2005; Simonsen & Elklit, 2008). Regarding SEIS, items were translated and back the method by the committee suggested by Brislin (1980), who said that the members are experienced in sports sciences and sporting events to test the face validity. To test the comprehensibility of the scale items, the pilot study was performed by reaching 54 athletes who participated in the "Gökova Half Marathon" event in the previous year via e-mail between September 1 and October 30, 2023. There were no misunderstandings or objections regarding translated items after pilot study.

After successful translation, the process continued with testing the construct (Confirmatory Factor Analysis) validity, convergent (CR and AVE) validity, and reliability. Hambleton and Patsula (1999), state that for healthy Confirmatory Factor Analysis (CFA), a sample of 5-10 times of scale items are suitable. Accordingly, the data was collected by face-

to-face survey method on November 18, 2023, during the "Gökova Half Marathon" event. 598 athletes registered for the event, 462 athletes completed the race and 418 athletes who completed the competition participated in the study therefore, it can be said that the required sample size for factor analysis was overreached. Following the completion of data collection, normality tests (skewness-kurtosis) and validity analysis (CFA, CR, AVE) were performed then internal consistency (Cronbach's Alpha) was examined in the same 418 athletes to test reliability. In addition, a test-retest reliability analysis was conducted on 113 participants in the same 418 athletes three weeks after when it was seen that no items were eliminated (at the end of the second round of CFA) and the fit indices were within the required range.

Data Collection Tools

The "Personal Information Form" developed by the researchers, which consists of age, gender, and running route preference, and the "Sport Event Image Scale" (SEIS) developed by Kaplanidou and Vogt (2007) was used to collect the data.

In the development phase of SEIS, according exploratory factor analysis (EFA) performed by researchers, it was found that one single factor with 13 items had a high Cronbach's Alpha reliability coefficient (0.920), and the items that loaded on this single factor captured the qualitative aspects identified by the focus group data analysis (Kaplanidou & Vogt, 2007). This single factor consisted of 13 items model was further tested for discriminant and convergent validity (construct validity dimensions) with the survey data. To test for the discriminant validity of the model by reserachers, confirmatory factor analysis (CFA) was conducted to estimate how the sport event image construct correlates with the rest of the constructs. The results supported the discriminant validity of the scale. Low correlation coefficients were observed between sports event image and past experience with the destination ($r = -0.050$), which are variables that semantically should not correlate highly with the event image (Kaplanidou & Vogt, 2007). Convergent validity of the sports event image construct was evaluated by incorporating into the survey questionnaire a brand personality scale by Aaker (1997) "to determine 1) the extent to which the measure correlates with other measures designed to measure the same thing and 2) whether the measure behaves as expected" (Churchill, 1979). This scale was chosen by researchers because brand personality is considered to be associated with brand image (Aaker, 1997). Another CFA was conducted between the two concepts, and the results revealed a significant correlation between the sports

event image and the brand personality scale ($r = 0.590$, $p<0.05$), which supports the convergent validity of the sports event image construct (Kaplanidou & Vogt, 2007).

Participants wrote their age, marked their gender and running route preferences in the personal information form, and indicated their judgments on a 7 point Semantic Differential scale that includes items such as "Unfulfilling/Fulfilling, Stimulating/Unstimulating (reverse coded item), Poor/Excellent, Sad/Joyful, Healthy/Unhealthy (reverse coded item), Boring/Exciting, Gloomy/Cheerful, Valuable/Worthless (reverse coded item), Ugly/Beautiful, Distressing/Relaxing, Unadventurous/Adventurous, Inspiring/Uninspiring (reverse coded item) and Unsupportive/Supportive".

Data Analysis

Descriptive statistics were used to provide personal information about the participants (demographics), the mean and standard deviation, and to test the normality of the research data. Written permission for the use of the scale was obtained from the authors of the SEIS, and ethics committee permission was obtained for this study from Marmara University Health Sciences Institute Ethics Committee within the scope of the doctoral thesis (Protocol No: 21.06.2023/78).

A structural equation modeling approach with maximum likelihood estimation is used to examine the latent variables within their causal structures after understanding that the research data has normal distribution (Thompson, 2008). The two-step approach was used as the basis for estimating the measurement model (Anderson & Gerbing, 1988). A Confirmatory Factor Analysis (CFA) was conducted on the model to ensure the measurement model's psychometric properties. Thereafter, the structural model was estimated to test the causal relationships. Assessing the fit of the model to the research data based on minimum discrepancy divided by degree of freedom (CMIN/DF), root mean square of approximation (RMSEA), root mean square residual (RMR), standardized root mean square residual (SRMR), goodness-of-fit index (GFI), adjusted goodness-of-fit-index (AGFI), comparative fit index (CFI), relative fit index (RFI), normed fit index (NFI) and non-normed fit index (NNFI; NNFI also known as TLI-TuckerLewis index) (Baumgartner & Homburg, 1996; Hu & Bentler, 1999; Tabachnick & Fidell, 2007).

CR (Composite Reliability; Convergent/Construct Reliability) and AVE (Average Variance Explained) were calculated to determine whether the scale provided convergent validity (Fornell & Larcker, 1981; Hair et al., 2010; Kline, 2011). The internal consistency coefficient Cronbach's Alpha was examined for reliability. Test-retest reliability was

conducted to understand whether the measurements obtained at different times were stable over time. For data analysis, SPSS 26 and AMOS 24 package programs were used.

RESULTS

Descriptives

The SEIS's mean score is 5.698±0.423 on the 7-point semantic differential scale. The distributions of the data were examined, and the skewness and kurtosis values were all within ± 2.0, indicating that the normality assumption was maintained (Table 3) and that it was appropriate to proceed with a factor analysis (Hair et al., 2022).

Table 3
Descriptive Statistics

Scale	N	Mean	sd	Skewness	Kurtosis
SEIS	418	5.698	0.423	1.689	1.756
Total	*418*	*5.698*	*0.423*	*1.689*	*1.756*

Confirmatory Factor Analysis (CFA) and Reliability Findings

In this stage of the data analysis process, CFA was performed to test the accuracy of the structural pattern. The factor loadings of the items between 0.764 and 0.959. This can be shown as evidence that the items in the scale strongly represent the dimension they are in (Marsh & Hocevar, 1985).

After the first round of CFA, CMIN/DF=7.427, RMSEA=0.124, and AGFI=0.805 values have been found out of the acceptable fit range (Tabachnick & Fidell, 2007). RFI=0.949 value has been found to be an acceptable fit (Byrne, 2011; Hu & Bentler, 1999) and RMR=0.006, SRMR=0.005, GFI=0.957, CFI=0.989, NFI=0.987 and NNFI(TLI)=0.956 values have been found excellent fit range (Bentler, 1980; Kline, 2011). The initial round of CFA results revealed insufficient fit indices values for CMIN/DF, RMSEA, and AGFI. In order to see if any improvements occur in the values, the CFA is repeated according to the suitable modification suggestions, which did not contradict with the theoretical frame of the original scale (Kline, 2011; p.210). In line with the suggestion of the analysis program, modification was made between items 6 and 7 in a way that would not disrupt the theoretical structure of the scale. The model diagram of the scale after the second round of CFA is shown in Figure 1.

Figure 1
Model Diagram of the Sport Event Image Scale

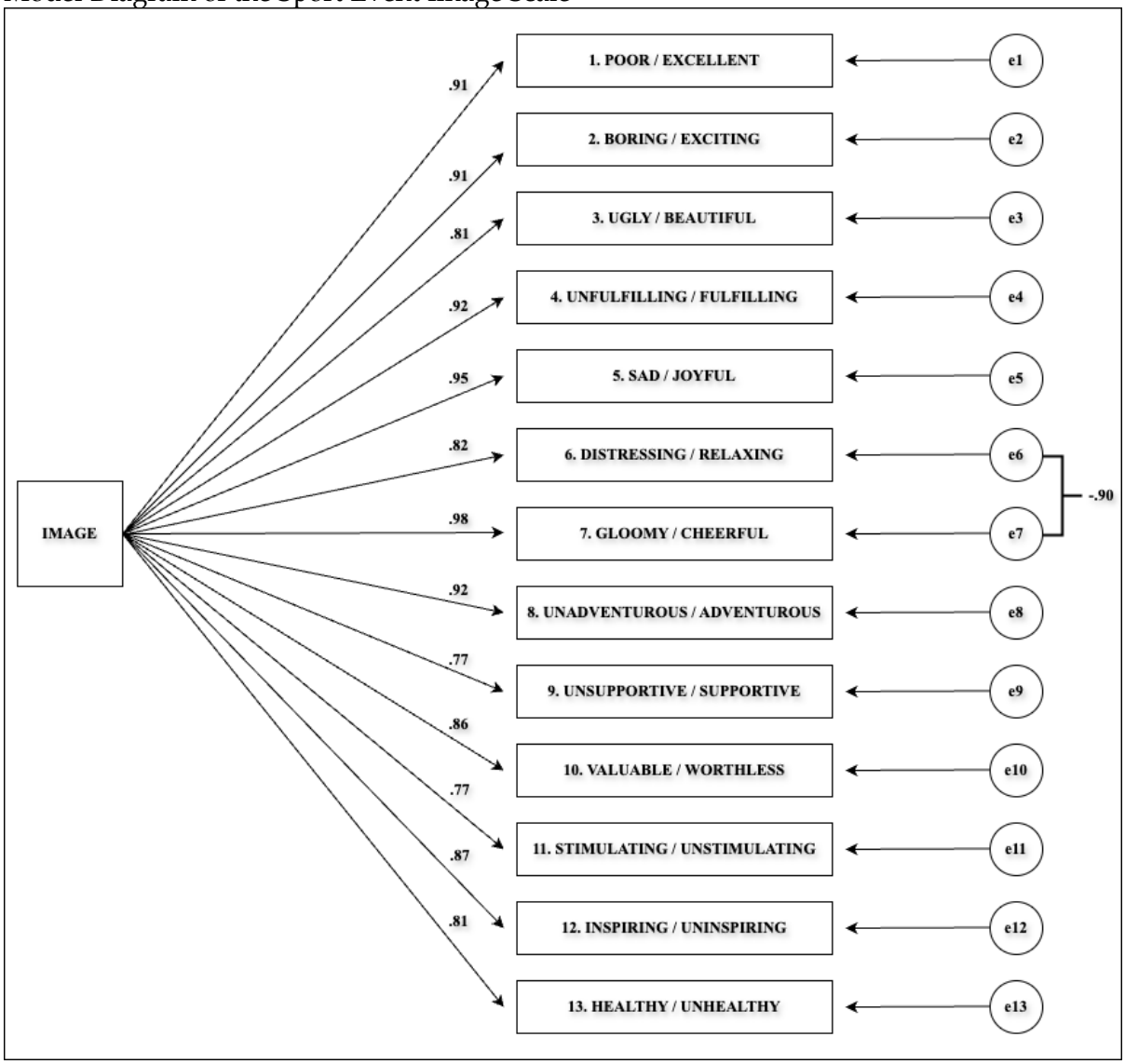

Table 4 shows the goodness of fit values of the scale after modification in the second round of CFA. CMIN/DF, RMSEA and AGFI values have been found acceptable fit (Awang, 2012; Tabachnick & Fidell, 2007). RMR, SRMR, GFI, RFI, CFI, NFI and NNFI (TLI) values have been found excellent fit ranges (Baumgartner & Homburg, 1996; Bentler, 1980; Bentler & Bonet, 1980; Byrne, 2011; Engel et al., 2003; Hu & Bentler, 1999; Marsh & Hocevar, 1985).

Table 4
Goodness of Fit Index

Fit Index	Excellent Treshold	Acceptable Treshold	SEIS
[1]CMIN/DF	0<CMIN/DF<2	2<CMIN/DF<5	3.441
[2]RMSEA	0<RMSEA<0.05	0.05<RMSEA<0.08	0.077
[3]RMR	0<RMR<0.05	0.05<RMR<0.08	0.007
[3]SRMR	0<SRMR<0.05	0.05<SRMR<0.1	0.006
[4]GFI	0.95<GFI<1	0.90<GFI<0.95	0.976
[4]AGFI	0.90<AGFI<1	0.85<AGFI<0.90	0.885
[5]RFI	0.95<RFI<1	0.90<RFI<0.95	0.976
[6]CFI	0.95<CFI<1	0.90<CFI<0.95	0.996
[7]NFI	0.95<NFI<1	0.90<NFI<0.95	0.994
[7]NNFI (TLI)	0.95<NNFI<1	0.90<NNFI<0.95	0.983

Note. [1567] (Bentler & Bonet, 1980), [1457] (Marsh & Hocevar, 1985), [15] (Byrne, 2011), [2] (Hair et al., 2010), [124] (Tabachnick & Fidell, 2007), [2] (Awang, 2012), [3456] (Hu & Bentler, 1999), [34] (Kline, 2011), [47] (Baumgartner & Homburg, 1996), [4] (Engel et al., 2003), [67] (Bentler, 1980).

In addition, CR (Composite Reliability; Convergent/Construct Reliability) and AVE (Average Variance Explained) were calculated to determine whether the scale has convergent validity. Table 5 shows that CR was bigger than 0.700 and AVE was bigger than 0.500. According to these construct validity values, it is understood that the factor and all items met the convergent validity (Fornell & Larcker, 1981; Hair et al., 2010; Kline, 2011).

Two different techniques were used to determine SEIS's reliability. Cronbach's Alpha was 0.976 as the internal consistency coefficient value, and Pearson's R was 0.901 as the test-retest correlation coefficient to test the scale's consistency over time, which was conducted after a three-week interval from CFA (Table 5).

Table 5
CR, AVE, Cronbach's Alpha and Test-Retest Results

Scale	CR	AVE	Cronbach's Alpha	Test-Retest
SEIS	0.979	0.782	0.976	0.901

DISCUSSION

The current study, which purposed to adapt and test the validity and reliability of the "Sport Event Image Scale" for the Turkish population, included several phases such as translation from the original language to Turkish, confirmation of the psychometric structure, and testing the reliability. After translation of SEIS into the target language, normality was checked and to test the compatibility of the Turkish version with the original version's psychometric structure a confirmation analysis was performed via CFA (Anderson & Gerbing, 1988). CFA were conducted using the maximum likelihood estimation method.

Various studies on goodness fitting and lack of fitting are used in CFA. However, more than 30 indices are developed as fit indices and/or lack of fit indices (Marsh et al., 1988). However, these indices are not always consistent, leading to disagreements about the "best-fit index" (Thompson & Daniel, 1996). Steiger (1990), states that there is no such concept as "best fit coefficient". For that reason, Jaccard and Wan (1996) emphasize that at least 3 indices, and Kline (2011) emphasize that at least 4 indices should be reported in studies involving model estimation. Raykov et al. (1991) recommended reporting the CMIN/DF, RMSEA, RMR, NFI, NNFI (TLI), and CFI; Hu and Bentler (1999) suggested reporting the CMIN/DF, RMSEA, SRMR, CFI, and NNFI (TLI) indices. Also, Fornell and Larcker (1980), with Bentler and Bonett (1980) recommendations were to report CMIN/DF, RMSEA, NFI, CFI, and GFI; Hair et al. (2010) CMIN/DF, RMSEA, AGFI, CFI, NFI, and GFI indices. While such indices can be classified into two different categories, such as fit or lack of fit indices, there is a more common classification in the literature. According to the most basic common classification in the literature, fit and lack of fit indices are classified into two categories; (a) absolute fit indices, and (b) incremental or relative fit indices (Widaman & Thompson, 2003; Yuan, 2005). In this study, recommended indices according to the literature mentioned above, CMIN/DF, RMSEA, RMR, SRMR, AGFI, and GFI considered as absolute fit, and RFI, CFI, NFI and NNFI (TLI) are considered as incremental or relative fit indices were used (Gupta & Singh 2014; Mulaik et al., 1989; Yurdugül, 2007).

Chinese adapted version of the SEIS, GFI was 0.960 (excellent fit; Huang et al., 2015) while Korean version of GFI was 0.912 (acceptable fit) and AGFI was 0.907 (acceptable fit) (Girish & Lee, 2019). Baumgartner and Homburg (1996), Engel et al. (2003), Marsh and Hocevar (1985), Tabachnick and Fidell (2007), suggest that 0.900 for GFI and 0.850 and above for AGFI are acceptable fit values. The results showed that the model has similar GFI and AGFI values in previous adaptations of SEIS. Excellent fit index values for GFI (0.976) and acceptable fit index values for AGFI (0.885).

Koo et al. (2014) used the scale (in the original English version) in their research regarding event images and reported the CFI value as 0.923 (acceptable fit). Chinese adapted version of the SEIS CFI was 0.970 (excellent fit; Huang et al., 2015), and the Korean version of the CFI was 0.951 (excellent fit; Girish & Lee, 2019). CFI compares the fit model with the fit null hypothesis model that ignores correlation and covariance between latent variables. It predicts that there is no relationship between variables. Between 0-1 values show that CFI has the goodness of fit and increases as it approaches 1. For CFI to be accepted, it is expected to

exceed 0.900 (Bentler, 1980; Bentler & Bonet, 1980; Hu & Bentler, 1999). Parallel to the previous adaptations of SEIS, the CFI value obtained from this study (0.996) indicates an excellent fit.

Chinese adapted version of the SEIS, NFI was 0.950 (acceptable fit; Huang et al., 2015), and the Korean version of the NFI was 0.927 (acceptable fit; Girish & Lee, 2019). NFI investigates the fit hypothesized model with the null hypothesis model, and the value found is desired to be above 0.900; the closer it is to 1, the better the goodness of fit (Baumgartner & Homburg, 1996; Bentler, 1980; Bentler & Bonet, 1980; Marsh & Hocevar, 1985). While in previous adaptations of the SEIS, the CFI has been found to be an acceptable fit, in this adaptation study, the NFI value, which has an excellent fit, was found to be 0.994.

Koo et al. (2014) reported the NNFI (TLI) value as 0.913 (acceptable fit) in their study using SEIS. The NNFI or TLI attempts to correct for negative bias by considering the null model and the degrees of freedom of the researcher's model. More significant than 0.900 is recommended for an acceptable fit NNFI (TLI; Baumgartner & Homburg, 1996; Bentler, 1980; Bentler & Bonet, 1980; Marsh & Hocevar, 1985). While Koo et al. (2014) have found an acceptable fit, in this adaptation study, the NNFI (TLI) value was found to be 0.994, which is an excellent fit.

RFI includes a factor that represents deviations from a null model and compares the hypothesized model chi-square to one from a “null” or “baseline” model. It takes a value between 0-1 and an acceptable RFI to exceed 0.900 (Bentler & Bonet, 1980; Byrne, 2011; Hu & Bentler, 1999; Marsh & Hocevar, 1985). The RFI value was found to be 0.976, which has an excellent fit. Neither in previous adaptations of the SEIS, nor in the original version, the RFI index, has been reported.

RMR value changes depend on size, number of variables, and values of other fit indices. SRMR is a standardized version of RMR. While the RMR and SRMR values are expected to be below 0.050, it is stated that this value can be stretched up to 0.080 for RMR and 0.1 for SRMR (Hu & Bentler, 1999; Kline, 2011). The RMR value of the scale is at the level of excellent fit with 0.007 and SRMR is also excellent fit with 0.006. Koo et al. (2014) found SRMR value acceptable fit of 0.053 in their study related to event images.

Korean adapted version of the SEIS, RMSEA was 0.031 (excellent fit; Girish & Lee, 2019) while Chinese version of RMSEA was 0.060 (acceptable fit; Huang et al., 2015). Koo et al. (2014) reported the RMSEA value as 0.053 (acceptable fit) in their study using SEIS. RMSEA is an index that evaluates fit as a function of degrees of freedom (DF); according to Tabachnick and Fidell (2007), the expected RMSEA value should be less than 0.050, but it is stated that up to

0.080 is acceptable (Awang, 2012; Hair et al., 2010). The RMSEA value of this adaptation study is at the level of acceptable fit with 0.077, which is a parallel result of previous adaptations of SEIS.

Chinese adapted version of the SEIS, CMIN/DF was 1.880 (excellent fit; Huang et al., 2015), and Korean version was 1.690 (excellent fit; Girish & Lee, 2019). CMIN/DF is the minimum discrepancy divided by the degree of freedom; less than 2 is an excellent fit, whereas between 2 and 5 refers to an acceptable fit (Bentler & Bonet, 1980; Byrne, 2011; Marsh & Hocevar, 1985; Tabachnick & Fidell, 2007). While Huang et al. (2015) with Girish and Lee (2019) report the CMIN/DF values as an excellent fit, Koo et al. (2014) has been found an acceptable fit at 2.405. In this adaptation study, the CMIN/DF value was found to be 3.441, which is an acceptable fit similar to that of Koo et al. (2014).

When the convergent validity of the scale was evaluated as a result of CFA, there were no statements below the lower cut-off point of 0.764 among the 13 items. Fornell and Larcker (1981), show that factor loadings exceed 0.700 as evidence of convergent validity. When all of the scale items are evaluated, it can be said that convergent validity is achieved. In addition that, CR and AVE values were calculated. CR was bigger than 0.700 and AVE was bigger than 0.500. According to these construct validity values, it is understood that all items met the convergent validity (Fornell & Larcker, 1981; Hair et al., 2010). In previous adaptations of the SEIS; Chinese version CR was 0.830 (CR > 0.700) and AVE was 0.660 (AVE > 0.500; Huang et al., 2015), while Korean version CR was 0.940 (CR > 0.700) and AVE was 0.760 (AVE > 0.500) (Girish & Lee, 2019). Also, Koo et al. (2014) reported to CR value as 0.924 (CR > 0.700) and AVE as 0.607 (AVE > 0.500) in their study using SEIS. Convergent validity was evaluated with the help of another scale (a brand personality) developed by Aaker (1997) in the original version of SEIS. Researchers chose this scale because brand personality is considered to be associated with brand image (Aaker, 1997). The results revealed a significant correlation between the sports event image and the brand personality scale ($r = 0.590$, $p < 0.05$), which supports the convergent validity of the sports event image construct (Kaplanidou & Vogt, 2007). The same procedure was made by Kogoya et al. (2022) in the Indonesian version of SEIS ($r = 0.675$, $p < 0.05$).

In the evaluation of the reliability of the SEIS, internal consistency analysis was performed. Cronbach's Alpha coefficient for the total scale is 0.976. According to DeVellis (2017) with Nunnally and Bernstein (1994), when the Cronbach's Alpha coefficient is more significant than 0.900, the scale has a high level of reliability. As can be understood from this,

the adaptation of SEIS in Turkish culture has high internal consistency. In previous adaptations of the SEIS, Korean version of Cronbach's Alpha was 0.837 (Girish & Lee, 2019), while Chinese version of Cronbach's Alpha was 0.870 (Huang et al., 2015). Also, Koo et al. (2014) found the Cronbach's Alpha coefficient value as 0.896 in their study using SEIS. The original version of SEIS internal consistency was found to be 0.920 (Kaplanidou & Vogt, 2007). Test-retest reliability analysis was conducted on 113 participants in the same group three weeks after the fit indices were within the acceptable range. The correlation coefficient (Pearson's R) between the measurements was calculated as 0.901. According to Hair et al. (2010), the Pearson's correlation coefficient, which shows the test-retest result, indicates a high level of relationship as it approaches 1. In other words, it can be said that there is a high consistency among the items in the scale, meaning that there is no problem with the reliability of the scale over time.

Limitations

The study sample, which was composed of runners of the Gökova Half Marathon event, may be the limitation of this study. Therefore, in the following research studies, testing the reliability and validity of the scale through different sports events with different participants (active sport tourists) may contribute to its reliability and validity and strengthen its functionality in different sample groups.

CONCLUSION

Results showed that adapted SEIS maintained the psychometric properties of the original scale. Moreover, it had adequate CFA fit indices and a high level of internal consistency coefficients. This feature of adapted SEIS in Turkish culture is similar to previous adaptations of it in different cultures (Girish & Lee, 2019; Huang et al., 2014; Kogoya et al., 2022). To conclude, the "Sport Event Image Scale" can be considered as a valid and reliable instrument for research studies that will be conducted on the Turkish population to make meaningful interpretations of the general image of sports events organized in Türkiye.

Athletes can be motivated to participate in a sports event for several reasons, including the unique qualities of the event that differentiate it from others in the marketplace or the event's image and reputation (Aicher & Brenner, 2015; Lough et al., 2016). Therefore, it is important to know the overall image of the sports event in order to attract these motivated athletes to the event, to make a satisfied and loyal consumer base, to add distinctive features

to the event, and to have a strategic position in the market. Limited research was found in international literature regarding event image relationship with participant motivation, past experience, satisfaction, loyalty, and behavioral intention (Girish & Lee, 2019; Huang et al., 2015; Kogoya et al., 2022; Koo et al., 2014; Lianopoulos et al., 2021). When the Turkish sports literature is examined, there is no research regarding the effect of sports event image on event participation, motivation, and event loyalty. It is recommended to conduct research on sports event image using this adapted scale.

PRACTICAL IMPLICATIONS

In Türkiye, especially in recent years, there has been an increase in the number of public and private events in many sports disciplines and a corresponding increase in the mobility of domestic sports athletes. This positive situation not only intensifies competition between events but also challenges event organizers and managers in terms of the sustainability of the event in the following years.

To hold a competitive advantage over other athletic events, it is important for event organizers and managers to determine the overall image of their sports event in order to build satisfied and loyal participants. Emphasizing the distinctive qualities of the event, investing in the event in all kinds of emotional, social, organizational, and physical dimensions that will make a difference, or finding the right and appropriate sponsors to invest in, is the biggest task of event organizers and managers in terms of both sustainability and creating a satisfied and loyal participant profiles.

The SEIS, adapted through this study, is very valuable for event organizers and managers in terms of evaluating the related sport event's image from the perspective of active athlete participants. Gathering such information would be fruitful for organizers and managers to determine the event's position in the market, identify the distinctive features of the event, and find the right sponsors suitable for the event's image.

In line with the results obtained from the research, the following recommendations have been developed.

- It is recommended that brands that want to sponsor sports events evaluate the compatibility between their company and the event image using the SEIS before making the sponsorship decision.
- Sponsorship involves image sharing for both parties. Sports marketers who want to strengthen the sport event image are recommended to test the event image using

the scale before planning the sponsorship process and to choose the sponsors using the data obtained.

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Authors' Contributions

The first and second authors contributed to conceptualizing the research, literature review, data collection, research outline, determining the research method, collecting the data, evaluating the data analysis, and critically interpreting the final draft. The first and third authors contributed to performing data analysis, evaluating findings, and critical interpretation of the final draft.

Declaration of Conflict Interest

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

Ethics Statements

The authors of the SEIS gave written permission to use the scale, and the ethics committee of Marmara University Health Sciences Institute gave permission for this study within the scope of the doctoral thesis (Protocol No: 21.06.2023/78).

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