# The Consumer Value in Mega Sports Fan Festival: Scale Development and Validation 



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#### Abstract

: Introduction: This study aimed to identify key values associated with fan festivals for the mega sports event. By examining those key values, researchers and practitioners may broaden their understanding of why sports fans attend fan festivals for mega sports events.

Materials and Methods: This study identified four dimensions of the Fan Festival Value Scale (FFVS)—hedonic, aesthetics, social, and social justice values-and statistically confirmed that the proposed measurement scale is reliable and valid.

Results: This study showed that fans attend the fan festival to experience positive effects, watch the athletic performance, interact with other fans, and support social values (e.g., fairness and cooperative spirit). In particular, those four values may be divided into individualistic or collectivistic perspectives. From the individualistic perspective, fans may attend the fan festival to experience self-oriented values, such as to elicit positive emotional responses like pleasure and excitement and to enjoy the aesthetic movements of athletes. In predictive validity, the results indicated that the aesthetic and social values significantly predicted the attitude toward the fan festival, and hedonic, aesthetic, social, and social justice values significantly predicted fans' future intention to attend fan festivals for mega sports events. These findings suggest that the FFVS effectively predicts how fans form attitudes toward a fan festival and which specific values motivate those fans to attend fan festivals in the future.

Conclusion: The results of the current study can provide meaningful implications to the managers of the fan festival in terms of which values are derived from those fans to attend the fan festival.


Keywords: Consumer value, Fan festival, Mega sports event, Scale development, Hedonic, Aesthetic.
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## 1. INTRODUCTION

Sports spectatorship provides numerous values to fans [1-3]. For example, sports events provide spectators with opportunities to experience positive affect (e.g., hedonic value), a sense of achievement (e.g., personal growth value), and the ability to build social relationships with others (e.g., social values) [4, 5]. For example, fans may
feel greater arousal and excitement after watching an exciting game, vicariously experience a sense of achievement by witnessing a winning moment involving their favorite team, and foster a deeper relationship with their friends by watching a game with them. Understanding the values associated with sports is important for practitioners and scholars because they have significant power in determining fan behaviors, such as game
attendance [3], media consumption, and merchandised product consumption [6, 7]. Because of the importance of values in shaping sports fans' decisions, scholars have attempted to identify key values associated with sports and examine how those values predict fans' behaviors [6, 7].

Although scholars have initially attempted to conceptualize key values in various contexts [8-10] and developed measurement scales, previous studies have not been put forth in the context of sports spectatorship. In addition, there is a research gap in psychometrically sound measurement scales to measure fans' values associated with sports spectatorship. Therefore, this study focuses on the context of a fan festival for a mega-sports event to fill the research gap in pre-existing literature.

People often attend fan festivals for mega sports events (e.g., Olympics and World Cup) to watch the games with their friends or friends they have never met. Such social consumption may be associated with various values. For instance, social value may be associated with fan festivals because fans watch the game with others, and hedonic value may be associated with fan festivals because social consumption would make the experience of sports spectatorship more enjoyable and exciting [11]. With this in mind, the current study attempts to identify and conceptualize key values associated with fan festivals for mega sports events. Specifically, the present study develops and validates the Fan Festival Value Scale (FFVS), a psychometrically sound measurement scale for sports fans who attend the fan festival for a mega-sports event.

## 2. THEORETICAL BACKGROUND

### 2.1. Sports and Personal Values

Values refer to "constructs representing generalized behaviors or states of affairs that the individual considers important" [12]. Researchers have devoted a substantial amount of effort to identifying key values that affect various types of human behaviors, and they have found that values significantly affect individuals' attitudes [10], choices [9], and behavioral intentions [8]. Despite these findings, in the context of sports, values have been overlooked by scholars in understanding and predicting fans' behaviors, with a few notable exceptions. For example, researchers found that values are key in determining fans' behavioral intentions, such as game attendance [3] and media and merchandised consumption [6, 7]. Particularly, Lee and Trail [3] developed the value typology scale, which consists of 17 dimensions (e.g., aesthetics, hedonism, and patriotism), and the goals typology scale to examine how values and goals predict fans' behaviors, including general sports fanship, team identification, and behavioral consumption (e.g., media and merchandised consumption). In another study, Lee et al. [6] examined how different values determine fans' consumption of merchandised team products. Despite these early efforts, little research examines the effects of values on sports spectatorship, especially for a megasports event's fan festival. In the following section, we
identify and discuss how sports fans may associate with various values for the fans' festival.

### 2.2. Dimensions of the Fan Festival Value Scale (FFVS)

Numerous organizations run fan festivals for mega sports events to allow fans to watch the game with other fans. Because of such social experiences, numerous values may be associated with these fan festivals. In particular, the current study identifies four types of values that would play a key role for fans who attend the fan festival: (a) hedonic value, (b) aesthetic value, (c) social value, and (d) social justice value.

### 2.2.1. Hedonic Value

Hedonic value is generally conceptualized as a person's emotional response to entertainment and experiential consumption [13, 14]. For example, in sports, several studies have found that fans feel positive effects after watching a sports event, such as enjoyment, excitement, and pleasure [11, 15]. In addition, those studies further demonstrated that the positive emotional response significantly affects fans' behaviors, including the intention to attend the game at a stadium, watch the game on television, and merchandise consumption [11, 15]. Similarly, the current study proposes that fans may attend a fan festival for a mega sports event to satisfy hedonic values, such as pleasure and excitement. Therefore, we have defined hedonic value as an overall assessment of positive emotions engendered by attending the fan festival.

### 2.2.2. Aesthetic Value

Aesthetic value refers to an individual's desire to watch the game to enjoy the artistic beauty of athletes in motion [16]. For instance, fans may be motivated to watch sports that highlight aesthetic values (e.g., gymnastics) to enjoy the athletes' beautiful movements. Furthermore, evidence has indicated that the aesthetic aspect of sports motivates fans to watch the game [16]. It is a significant motivator for team support for women's professional sports [17]. With this in mind, we identified aesthetics as a key value that motivates fans to attend fan festivals for mega sports events.

### 2.2.3. Social Value

Sports provide numerous opportunities for fans to interact with other fans [4, 11]. Research has found that when fans watch the game with others, the social experience enhances the enjoyment and helps those fans develop new social relationships with others [4, 5]. In particular, the research found that participation in sports and leisure activities reduces prejudice and alienation between different groups, thereby improving intergroup relations [5, 18]. Consequently, fans build intimate social relationships with others who watch the game together [16]. In this study, we conceptualized social value as a social experience that fans may experience by interacting with other fans through mega sports events. With this in mind, we propose that social value is strongly associated
with fan festivals for mega sports events.

### 2.2.4. Social Justice Value

According to Schwartz and Bilsky [19], positive social justice values are built into moral systems. Values such as altruism, benevolence, kindness, and morality are important factors that determine individuals' moral actions and behaviors [8, 20, 21]. Social justice values are associated with various social interactions [22]. Sports fans attend fan festivals and interact with friends or strangers while watching the game. Social justice becomes particularly important when people interact with others they have never met before because they must redefine the social values (e.g., fairness and cooperation) associated with those social relations [23]. In this regard, because fan festivals enable fans to interact with others, the social consumption experience would help them obtain values related to social justice, such as fairness and cooperative spirit.

## 3. METHODOLOGY

### 3.1. Study 1: Developing FFVS

### 3.1.1. Stage 1: Domains of the Construct

Study 1 consisted of three stages Construct. In the first stage, this study identified key values associated with a fan festival for a mega-sports event and generated an initial pool of items. The initial pool of items was derived from the relevant literature. Reviewing the existing literature resulted in 43 values (e.g., achievement, aesthetic, hedonism, and patriotism) and 78 items. After we eliminated redundant items, the initial pool included 33 items with five values: hedonic, aesthetic, emotional, social, functional, and social justice values [11-17].

### 3.1.2. Stage 2: Item Generation, Purification, and Evaluation

In the second stage, we conducted an in-depth interview with 10 participants who had attended the 2010 World Cup Fan Festival and 10 who had attended the 2014

World Cup Fan Festival. Most spectators indicated they had mainly attended the fan festival for hedonic, aesthetic, emotional, and social values. In contrast, they found functional value (i.e., price) relatively unimportant. Thus, we removed the functional value dimension. Furthermore, ten expert panelists-including sports management professors, sports marketers, the World Cup Fan Festival promoters, and several Ph.D. students in sports management-examined 33 identified items together. After a careful review, these panelists suggested removing the emotional value because it may significantly overlap with the hedonic value (e.g., pleasure, enjoyment, and fresh feeling). As a result, this study identified four value dimensions (i.e., hedonic, aesthetic, social, and social justice) associated with the fan festival for the mega sports event. Each value dimension consisted of seven items.

### 3.1.3. Stage 3: First Data Collection (Pilot Test Sample 1) and Results

In the third stage, 143 undergraduate students who participated in the 2018 World Cup Fan Festival during the final qualifying round for the Asia region completed the survey for the initial quantitative evaluation of the FFVS. All participants were enrolled in undergraduate- or graduate-level sports management classes at a large private university in Korea. Among participants, 50.3\% ( $n$ $=72$ ) were male, and the respondents ranged from 19 to 50 years $(M=21)$. Participants were asked to answer all items on a 5-point Likert-type scale $(1=$ Strongly Disagree; 5 = Strongly Agree). We tested the reliability of the scale using Cronbach's alpha (> .70) and Cattell's scree test [24]. The results indicated that Cronbach's alpha was .88 for hedonic value, .77 for aesthetic value, .92 for social value, and .89 for social justice value. In addition, the FFVS showed strong item-to-total correlations, ranging from .58 to .88 [25-28]. Furthermore, the average mean of inter-item corrections ranged from .68 for aesthetic value to .89 for social justice value. The item-to-total and mean inter-item correlations are reported in Table 1.

Table 1. Item-to-total, mean inter-item correlations of the FFVS.

| Dimensions | Item | Item-to-total Correlation | Mean Inter-item Correlation |
| :---: | :---: | :---: | :---: |
| Hedonic value | HV1 | .67** | .88** |
|  | HV2 | .77** |  |
|  | HV3 | .85** |  |
|  | HV4 | .84** |  |
|  | HV5 | .70** |  |
|  | HV6 | .77** |  |
|  | HV7 | .74** |  |
| Aesthetics value | AV1 | .75** | .68** |
|  | AV2 | .77** |  |
|  | AV3 | .67** |  |
|  | AV4 | .72** |  |
|  | AV5 | .79** |  |
|  | AV6 | .58** |  |


| Dimensions | Item | Item-to-total Correlation | Mean Inter-item Correlation |
| :---: | :---: | :---: | :---: |
| Social value | SV1 | .75** | .85** |
|  | SV2 | .84** |  |
|  | SV3 | .79** |  |
|  | SV4 | .88** |  |
|  | SV5 | .86** |  |
|  | SV6 | .79** |  |
|  | SV7 | .82** |  |
| Social justice value | SJV1 | .76** | .89** |
|  | SJV2 | .82** |  |
|  | SJV3 | .80** |  |
|  | SJV4 | .79** |  |
|  | SJV5 | .77** |  |
|  | SJV6 | .77** |  |
|  | SJV7 | .77** |  |

Note: ** $p<.01$.

### 3.2. Study 2: Scale Validation

### 3.2.1. Stage 1: Data Collection and Scale Confirmatory

This study aimed to validate and confirm the structure through the confirmatory factor analysis (CFA). Three hundred ninety-nine ( $n=399$ ) sports fans who attended the fan festival for the World Cup match between South Korea and Sweden were recruited for and participated in this study. Among participants, 59.4\% ( $\mathrm{n}=237$ ) were male, and the average age was 30 (ranging from 18 to 59). This construct used seven items for hedonic, social, and social justice values dimensions and six for aesthetic value dimensions.

### 3.2.2. Stage 2: Reliability and Validity Test

In stage 2, we performed various statistical analyses to examine the reliability and validity of the FFVS. To examine the validity of the FFVS scale, we used structural equation modeling (SEM) and tested the composite reliability and the AVE. The results of Cronbach's alpha ranged from .81 (for aesthetic value) to .95 (for hedonic value), indicating high internal validity. Specifically, the CFA was employed to examine the dimension construction of the first-order factor and second-order factor model of the FFVS. To evaluate the fit of the proposed model of sample 2, we examined the CFA (maximum likelihood method) using AMOS 21.0. We employed the cutoff criteria for fit indices recommended by Hu and Bentler [29-38] in all our model evaluations.

### 3.2.3. Test of the First-order Factor Model

A CFA was conducted to examine the psychometric properties of the measures. Specifically, this study used the indices of the root mean square error of approximation (RMSEA), the standardized root mean square residual (SRMR), and the comparative fit index (CFI). The results indicated that the first-order factor model suffers from low fit $\left(\chi^{2}=1884.91 ; d f=246 ; x^{2} / d f=7.66 ;\right.$ RMSEA $=.13$; SRMR $=.10$; CFI $=.77$ ) because of some inadequate fit value in the model. This study used the modification indices (MIs) as criteria for eliminating items.

Consequently, we deleted three items for the hedonic, aesthetic, and social values. In addition, we deleted four items for the social justice value. After deleting these items, the modified measurement model yielded an acceptable model fit $\left(x^{2}=196.76 ; d f=71 ; \chi^{2} / d f=2.77\right.$; RMSEA $=.07$; SRMR $=.04 ; \mathrm{CFI}=.97$ ). The loading ranged between .63 (AV 5) and .95 (AV 2). All items loading on model 1 were statistically significant ( $p<.001$ ).

### 3.2.4. Test of the Second-order Factor Model

The model 2 CFA (second-order factor model) was completed with the 14 items of the modified FFVS. Model 2 yielded an acceptable model fit ( $x^{2}=206.27 ; d f=73$; $\chi^{2} / d f=2.83 ;$ RMSEA $=.07 ; \mathrm{SRMR}=.05 ; \mathrm{CFI}=.97$ ), and the loading ranged from 63 (AV 5) to . 95 (AV 2). The second-order factor models were more economical than the first [30]. In addition, as shown by the chi-square difference test ( $\Delta \chi^{2}$ ), model 1 was also more significant than model 2 ( $\Delta x^{2}=9.51, d f=2, \mathrm{p}<.01$ ). All measures loaded significantly on their respective factors.

### 3.2.5. Construct Reliability and Discriminate Validity

Model 1 yields a better fit, and by considering the results of CFA, we concluded that Model 1 is more robust than Model 2. Therefore, the comparison between Model 1 and Model 2 is reported in Table 2.
Table 2. CFA and comparison between Model 1 and 2.

| Fit Index | $\boldsymbol{x}^{2}$ | $\boldsymbol{d} \boldsymbol{f}$ | $\mathbf{x}^{2} / \boldsymbol{d} \boldsymbol{f}$ | RMSEA | SRMR | CFI | TLI | IFI |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model 1 <br> (The First-Order- <br> Factor) | 196.76 | 71 | 2.77 | .07 | .04 | .97 | .96 | .97 |
| Model 2 <br> (The Second-Order- <br> Factor) | 206.27 | 73 | 2.83 | .07 | .05 | .97 | .96 | .97 |
| Model 2 - Model1: Chi-square difference test: $\Delta x^{2}=9.51, d f=2, p<.01$ |  |  |  |  |  |  |  |  |

Note: References: Chi-square/df ratio [38]; RMSEA, CFI, TLI, and IFI [29]; SRMR [31].

The final factor loadings model is presented in Table 3. Thus, we used Model 1 to test the construct reliability and discriminated validity. To examine the construct reliability

Table 3. Factor loading ( $\lambda$ ), composite reliability (CR), and cronbach's alpha ( $\alpha$ ) for scale items (model 1).

| Item | $\lambda$ | CR | $\alpha$ |
| :---: | :---: | :---: | :---: |
| Hedonic values |  |  |  |
| Fan Fest gives me pleasure. | . 89 | . 94 | . 95 |
| Fan Fest gives me enjoyment | . 94 |  |  |
| Fan Fest makes me feel good. | . 94 |  |  |
| Fan Fest makes me refreshed. | . 84 |  |  |
| Aesthetics values |  |  |  |
| I feel inherent beauty in the soccer game through Fan Fest. | . 76 | . 83 | . 81 |
| I feel natural beauty in the soccer game through Fan Fest. | . 95 |  |  |
| I feel gracefulness in the soccer game through Fan Fest. | . 63 |  |  |
| Social values |  |  |  |
| Fan Fest helps me to keep a good relationship with people. | . 78 | . 87 | . 85 |
| Fan Fest helps me to meet a new friend. | . 81 |  |  |
| Fan Fest helps me to increase patriotism. | . 75 |  |  |
| The World Cup and the Olympics contribute to better international friendship. | . 70 |  |  |
| Social justice values |  |  |  |
| Fan Fest helps me to increase fairness. | . 82 | . 87 | . 86 |
| Fan Fest helps me to learn cooperative spirit. | . 92 |  |  |
| Fan Fest helps me to observe social norms. | . 75 |  |  |

Note: CR = Composite Reliability, $\alpha=$ Cronbach's alpha.
Dropped Items.
Hedonic values: Fan Fest gives me entertainment.
Aesthetics values: I feel overall beauty in the soccer game through the Fan Fest.
Sociable values: Fan Fest helps me to adjust to society.
Social justice values: Fan Fest helps me to protect the environment.

* $p<.01$.

Table 4. Average variance extracted (AVE), correlation coefficients, means and standard errors.

| Dimension | 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: |
| 1. Hedonic values | . $77^{\text {a }}$ | . 13 | . 34 | . 16 |
| 2. Aesthetics values | .36* | . $62{ }^{\text {a }}$ | . 08 | . 10 |
| 3. Social values | .58* | .28* | . $55^{\text {a }}$ | . 26 |
| 4. Social justice values | .40* | .31* | .51* | . $69{ }^{\text {a }}$ |
| Mean | 3.81 | 3.44 | 3.61 | 3.27 |
| Standard Error | . 94 | . 87 | . 75 | . 89 |

Note: ${ }^{\text {an }}$ Average Variance Extracted: Figures below the AVE line are the correlation between the constructs; Figures above the AVE line represent squared correlations between the constructs.
of Model 1 (i.e., first-order factor; four-factor model), we measured composite reliability (CR) and Cronbach's alpha value. The CR values were greater than .70 (hedonic value $=.94$; aesthetic value $=.83$; social value $=.87$; social justice value $=.87$ ) [32], indicating good overall construct reliability. In addition, the results showed that Cronbach's alpha was greater than .70 for each factor, indicating high levels of internal consistency and reliability (hedonic value $=.95$; aesthetic value $=.81$; social value $=.85$; social justice value $=.86$ ). The AVE values were also greater than .50 (hedonic value $=.77$; aesthetic value $=.62$; social value $=.55$; social justice value $=.69$ ) [39]. We used a correlation analysis among the value dimensions to test for discriminant validity. The estimated correlations between factors of the FFVS were not excessively high (e.g., < .85) [37]. This showed a reasonably appropriate level of factor correlations among FFVS factors; the squared correlation
between those two constructs was also less than the AVE value for each construct. Thus, the validity and reliability of the FFVS were established. The mean and standard deviation scores for each dimension are shown in Table 4.

### 3.3. Stage 3: Structural model Test for the Predictive Validity of the FFVS

The purpose of Stage 3 was to develop a psychometrically sound measurement tool for evaluating fan festival participation. In this study, we examined how each dimension of FFVS predicts the attitude toward the fan festival and the behavioral intention. Attitude toward the fan festival (i.e., unattractive/attractive, negative/ positive, and worthless/valuable) and the behavioral intention (i.e., intention to revisit the fan festival, intention to recommend the fan festival, and intention to purchase any items related to fan festival) was measured with three


Fig. (1). The result of SEM for the hypothesis tests. Note. ${ }^{* * *}$ p $<.001$; ** $\mathrm{p}<.01$; * $\mathrm{p}<.05$.
items using a 5-point Likert-type scale [33, 34]. The third data set (Sample 3) was collected from participants who attended the fan festival in South Korea from four different regions (three in Seoul and one in Gyeonggi-do) for the second game in the World Cup between South Korea and Germany. A total of 500 questionnaires were distributed, and 485 questionnaires were returned. Of those questionnaires, 477 yielded useful data for the data analysis. The sample comprised 263 (55.1\%) males, and the average age was 27 (ages 20 to 53 ).

## 4. RESULTS

### 4.1. Results of Hypothesis Testing

As shown in Fig. 1, SEM was used to test the hypothesized relationships among the FFVS, consumer attitudes, and intentions. The result of the proposed model showed a good model fit $\left(x^{2}=476.56 ; d f=155 ; x^{2} / d f=\right.$ 3.08; $\mathrm{p}<.001$; RMSEA $=.07$; SRMR $=.05$; CFI $=.94$; TLI $=.92$; IFI $=.94$ ). The results indicated that the aesthetic value ( $\beta=.16, \mathrm{p}<.05$ ) and social value ( $\beta=.23$, $\mathrm{p}<.05$ ) of the FFVS significantly influenced consumer attitudes; however, the hedonic value ( $\beta=.03$ ) and the social justice value ( $\beta=.00$ ) of the FFVS did not significantly influence
consumer attitudes. In terms of behavioral intention, the hedonic value ( $\beta=.56, \mathrm{p}<.001$ ), aesthetic value ( $\beta=.14$, $p<.01$ ), social value ( $\beta=.20, \mathrm{p}<.01$ ), and social justice value ( $\beta=.10, p<.05$ ) of the FFVS significantly influenced consumers' intentions. In addition, the result indicated that attitude significantly influences consumer intentions ( $\beta=.11, \mathrm{p}<.05$ ).

## 5. DISCUSSION

This study aimed to identify key values associated with fan festivals for the mega sports event. By examining those key values, researchers and practitioners may broaden their understanding of why sports fans attend fan festivals for mega sports events. Particularly, this study identified four dimensions of the FFVS-hedonic, aesthetics, social, and social justice values-and statistically confirmed that the proposed measurement scale is reliable and valid.

This study found that fans attend the fan festival to experience positive effects, watch the athletic performance, interact with other fans, and support social values (e.g., fairness and cooperative spirit). In particular, those four values may be divided into individualistic or collectivistic perspectives. From the individualistic
perspective, fans may attend the fan festival to experience self-oriented values, such as to elicit positive emotional responses like pleasure and excitement and to enjoy the aesthetic movements of athletes. This finding is consistent with most sports and social psychology literature, which has conceptualized sports consumption from a hedonic perspective [35]. Furthermore, evidence has demonstrated that hedonic and aesthetic perspectives of sports consumption motivate people to watch and participate in sports activities [36].

However, the collectivistic perspective of fan festivals was also identified in FFVS. Fans attend the festival to experience social relationships with close and distant friends or previously unknown individuals. Thus, fan festivals may provide numerous opportunities for social interactions with attendees because fans usually watch the game with others. The present study found that such social consumption is linked with social and social justice values. Fans attend the fan festival to develop or foster social relationships with other fans (demonstrating social values). Such a social experience provides an opportunity to learn a cooperative spirit and create social norms (demonstrating social justice values). These findings are consistent with previous sports literature, which found that sports activities generally involve social experiences where fans watch the game with others [11]. This social experience motivates fans to engage in sports-related activities [36].

In predictive validity, the results indicated that the aesthetic and social values significantly predicted the attitude toward the fan festival, and hedonic, aesthetic, social, and social justice values significantly predicted fans' future intention to attend fan festivals for mega sports events. These findings suggest that the FFVS effectively predicts how fans form attitudes toward a fan festival and which specific values motivate those fans to attend fan festivals in the future.

The current study builds on previous literature in multiple ways. First, the current study extended the existing literature by providing better information regarding values associated with the fan festival for a mega-sports event and by developing four dimensions of the FFVS. In sports, previous literature has mainly focused on identifying key values associated with merchandised product evaluation [7]. Second, by developing a reliable and valid scale of FFVS, the present study demonstrated that specific values have a unique power in predicting various types of fan behavior, such as attitude toward fan festivals and future intention to attend fan festivals. Third, the FFVS can be applied to various psychological and marketing explorations. For example, the items used in this study could help measure values for consumers participating in large-scale cultural events, such as festivals and concerts.

## 6. LIMITATIONS AND FUTURE RESEARCH

This study recognizes the limitations of this study. Participants in this study were recruited only from South Korea, and we focused only on mega sports events. Thus,
the results may suffer from low generalizability. Researchers should use caution when applying these findings to different populations and contexts. Therefore, future studies should try replicating the findings using a broader sample and different festivals.

Another interesting topic for future research could be identifying the moderating variable in the relationship between values and fan behaviors, such as cultural values or sports involvement. For example, fans from collectivistic countries, such as Korea and China, may associate more with social and social justice values than fans from individualistic countries, such as the United States. In addition, general interest in sports may moderate the effects of different values on fans' behaviors. For example, hedonic and aesthetic values may impact highly involved fans more strongly than less involved ones. Meanwhile, social and social justice values may strongly influence less involved fans than highly involved fans. As such, future research should attempt to identify key moderating variables in the relationship between values and fans' behaviors.

## CONCLUSION

This study aimed to identify key values associated with fan festivals for the mega sports event. By examining those key values, researchers and practitioners may broaden their understanding of why sports fans attend fan festivals for mega sports events. This study identified four dimensions of the Fan Festival Value Scale (FFVS)-hedonic, aesthetics, social, and social justice values-and statistically confirmed that the proposed measurement scale is reliable and valid. This study showed that fans attend the fan festival to experience positive effects, watch the athletic performance, interact with other fans, and support social values (e.g., fairness and cooperative spirit). In particular, those four values may be divided into individualistic or collectivistic perspectives. From the individualistic perspective, fans may attend the fan festival to experience self-oriented values, such as to elicit positive emotional responses like pleasure and excitement and to enjoy the aesthetic movements of athletes. In predictive validity, the results indicated that the aesthetic and social values significantly predicted the attitude toward the fan festival, and hedonic, aesthetic, social, and social justice values significantly predicted fans' future intention to attend fan festivals for mega sports events. These findings suggest that the FFVS effectively predicts how fans form attitudes toward a fan festival and which specific values motivate those fans to attend fan festivals in the future.

The results of the current study can provide meaningful implications to the managers of the fan festival in terms of which values are derived from those fans to attend the fan festival.

## LIST OF ABBREVIATIONS

FFVS = Fan Festival Value Scale
RMSEA $=$ Root mean square error of approximation

| SRMR | $=$ Standardized root mean square residual |
| :--- | :--- |
| CFI | $=$ Comparative fit index |
| MIs | $=$ Modification indices |
| CR | $=$ Composite reliability |

## CONSENT FOR PUBLICATION

Not applicable.

## AVAILABILITY OF DATA AND MATERIAL

All the data and supportive information are provided within the article.

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## CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

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## Declared none

## REFERENCES

[1] Gau LS, James JD. A ten-value-type framework associated with spectator sports a qualitative inquiry. SAGE Open 2013; 3 (2). http://dx.doi.org/10.1177/2158244013485580
[2] Kahle L, Duncan M, Dalakas V, Aiken D. The social values of fans for men's versus women's university basketball. Sport Mark Q 2001; 10: 156-63.
[3] Lee D, Trail G. The influence of personal values and goals on cognitive and behavioral involvement in sport. J Sport Manage 2011; 25(6): 593-605.
http://dx.doi.org/10.1123/jsm.25.6.593
[4] Carey M, Mason DS, Misener L. Social responsibility and the competitive bid process for major sporting events. J Sport Soc Issues 2011; 35(3): 246-63.
http://dx.doi.org/10.1177/0193723511416985
[5] Schulenkorf N, Edwards D. Maximizing positive social impacts: Strategies for sustaining and leveraging the benefits of intercommunity sport events in divided societies. J Sport Manage 2012; 26(5): 379-90.
http://dx.doi.org/10.1123/jsm.26.5.379
[6] Lee D, Cianfrone BA, Byon KK, Schoenstedt L. An examination of the relationships among personal values, team identification, product involvement, product attributes, and purchase intention of licensed team merchandise. Int J Sport Manag 2010; 11: 517-40.
[7] Lee D, Trail GT, Kwon HH, Anderson DF. Psychometric properties of the MVS, PRS, and PERVAL scales: Consumer values versus perceived value. Sport Manage Rev 2011; 14: 89-101. http://dx.doi.org/10.1016/j.smr.2010.05.001
[8] Bardi A, Schwartz SH. Values and behavior: Strength and structure of relations. Pers Soc Psychol Bull 2003; 29(10): 1207-20. http://dx.doi.org/10.1177/0146167203254602 PMID: 15189583
[9] Feather NT. Values, valences, and course enrollment: Testing the role of personal values within an expectancy-valence framework. J Educ Psychol 1988; 80(3): 381-91. http://dx.doi.org/10.1037/0022-0663.80.3.381
[10] Grunert SC, Juhl HJ. Values, environmental attitudes, and buying of organic foods. J Econ Psychol 1995; 16(1): 39-62. http://dx.doi.org/10.1016/0167-4870(94)00034-8
[11] Jang EW, Ko YJ, Wann D, Chang Y. The relative effects of game outcome and process on fans' media consumption experiences.

Eur Sport Manag Q 2017; 17(5): 635-58.
http://dx.doi.org/10.1080/16184742.2017.1334683
[12] Gordon LV. The measurement of interpersonal values. Chicago: IL Science Research Associates, Inc 1975.
[13] Ailawadi KL, Neslin SA, Gedenk K. Pursuing the value-conscious consumer: Store brands versus national brand promotions. J Mark 2001; 65(1): 71-89.
http://dx.doi.org/10.1509/jmkg.65.1.71.18132
[14] Babin BJ, Darden WR, Griffin M. Work and/or fun: Measuring hedonic and utilitarian shopping value. J Consum Res 1994; 20(4): 644-56.
http://dx.doi.org/10.1086/209376
[15] Biscaia R, Correia A, Rosado A, Maroco J, Ross S. The effects of emotions on football spectators' satisfaction and behavioural intentions. Eur Sport Manag Q 2012; 12(3): 227-42.
http://dx.doi.org/10.1080/16184742.2012.679949
[16] Wann DL, Grieve FG, Zapalac RK, Pease DG. Motivational profiles of sport fans of different sports. SMQ 2008; 17: 6-19.
[17] Funk DC, Ridinger LL, Moorman AM. Understanding consumer support: Extending the Sport Interest Inventory (SII) to examine individual differences among women's professional sports consumers. Sport Manage Rev 2003; 6(1): 1-32. http://dx.doi.org/10.1016/S1441-3523(03)70051-5
[18] Sherif M. Superordinate goals in the reduction of intergroup conflict: An experimental evaluation. In: Austin WG, Worchel S, Eds. The social psychology of intergroup relations. Monterey, CA: Brooks/Cole Pub. Co 1979; pp. 257-61.
[19] Schwartz SH, Bilsky W. Toward a universal psychological structure of human values. J Pers Soc Psychol 1987; 53(3): 550-62.
http://dx.doi.org/10.1037/0022-3514.53.3.550
[20] Boer D, Fischer R. How and when do personal values guide our attitudes and sociality? Explaining cross-cultural variability in attitude-value linkages. Psychol Bull 2013; 139(5): 1113-47. http://dx.doi.org/10.1037/a0031347 PMID: 23339521
[21] Gallarza MG, Arteaga F, Gil-Saura I. The value of volunteering in special events: A longitudinal study. Ann Tour Res 2013; 40: 105-31.
http://dx.doi.org/10.1016/j.annals.2012.08.001
[22] Prilleltensky I. Value-based praxis in community psychology: Moving toward social justice and social action. Am J Community Psychol 2001; 29: 747-78.
[23] Schwartz SH, Cieciuch J, Vecchione M, et al. Refining the theory of basic individual values. J Pers Soc Psychol 2012; 103(4): 663-88.
http://dx.doi.org/10.1037/a0029393 PMID: 22823292
[24] Nunnally JC, Bernstein IH. Psychometric theory. (3rd ed.), New York: McGraw- Hill 1994.
[25] Hair JF, Anderson R, Tatham RL, Black WC. Multivariate data analysis. Upper Saddle River: Prentice-Hall 1998.
[26] Netemeyer RG, Boles JS, McMurrian R. Development and validation of work-family conflict and family-work conflict scales. J Appl Psychol 1996; 81(4): 400-10. http://dx.doi.org/10.1037/0021-9010.81.4.400
[27] Robinson JP, Shaver PR, Wrightsman LS. Criteria for scale selection and evaluation. Measures of Personality and Social Psychological Attitudes. 1991; 1: pp. (3): 1-16.
[28] Tian KT, Bearden WO, Hunter GL. Consumers' need for uniqueness: Scale development and validation. J Consum Res 2001; 28(1): 50-66.
http://dx.doi.org/10.1086/321947
[29] Hu L, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Struct Equ Modeling 1999; 6(1): 1-55. http://dx.doi.org/10.1080/10705519909540118
[30] Keith TZ. Multiple regression and beyond. Boston, MA: Pearson 2005.
[31] Steiger JH. Structural model evaluation and modification: An interval estimation approach. Multivariate Behav Res 1990; 25(2): 173-80.
http://dx.doi.org/10.1207/s15327906mbr2502 4 PMID: 26794479
[32] Hair JF, Anderson RE, Tatham RL, Black WC. Multivariate data analysis with readings. (6th ed.), NY: Macmillan Publishing Company 2006.
[33] Fishbein M, Ajzen I. Belief, attitude, intention, and behavior: An introduction to theory and research. MA: Addison-Wesley 1975.
[34] Swanson SR, Gwinner K, Larson BV, Janda S. Motivations of college student game attendance and word-of-mouth behavior: The impact of gender differences. SMQ 2003; 12: 151-62.
[35] Hightower R Jr, Brady MK, Baker TL. Investigating the role of the physical environment in hedonic service consumption: an exploratory study of sporting events. J Bus Res 2002; 55(9): 697-707.
http://dx.doi.org/10.1016/S0148-2963(00)00211-3
[36] Kim JW, James JD, Kim YK. A model of the relationship among sport consumer motives, spectator commitment, and behavioral intentions. Sport Manage Rev 2013; 16(2): 173-85. http://dx.doi.org/10.1016/j.smr.2012.08.004
[37] Kline RB. Principles and practice of structural equation modeling. (2nd ed.), New York: The Guilford Press 2005.
[38] Carmines EG, McIver JP. Analyzing models with unobserved variables: Analysis of covariance structures. In: Bohrnstedt G, Borgatta E, Eds. Social measurement: Current issues. Beverly Hills, CA: Sage 1981; pp. 65-115.
[39] Fornell C, Larcker DF. Evaluating structural equation models with unobservable variables and measurement error. J Mark Res 1981; 18(1): 39-50.
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