

Study of spectator satisfaction at a major athletics event

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Abstract:

Sporting events have become an important promotional tool for large cities, as they manage to generate levels of diffusion that would be economically unviable through advertising campaigns (Núñez, Calabuig, Añó, & Parra, 2014). These events have a high level of social repercussion and a strong presence in the media, thus generating a source of income for the cities (Añó, 2003). In this case, the relationship between the different dimensions of perceived quality and the competition elements regarding the satisfaction of the spectators of a Spanish Athletics Championship has been analysed to understand which elements have a greater influence on the achievement of higher levels of satisfaction, which will make the event more successful and generate a better perception of the event and the city that hosts it. In addition, the aim is to check whether the evaluations made by spectators show differences according to their age and gender, as well as their previous experience attending sporting events. The results show, at a descriptive level, that both spectators over 35 years of age and spectators who are women value the dimensions analysed most positively; differences are observed between these groups with respect to some of the analysed dimensions, whereas, regarding previous experience at events, the opinions are more equally distributed. For regression analysis, all the dimensions of perceived quality and the competition elements have a significant influence on user satisfaction, wherein the outcome quality and the competition elements are the most important elements in this prediction.

Key words: perceived quality, satisfaction, sporting events.

Introduction

Theoretical Framework

Events

The study of sports events is a topic of great interest in the field of research. If we look at the concept, we see that sporting events are events that are considered unique (Getz, 2008) because of the relationships that occur between the people, the environment and the organization. According to the same author, the events are never the same, and this uniqueness motivates spectators, as they have to be present to enjoy a specific event. Desbordes and Falgoux (2006) speak of events as spaces where men and women gather in collective celebration with the intention of attending a show, which may be sporting or cultural. Shone and Bryan (2001) state that events in general are intended to illustrate, celebrate, entertain or challenge the experience of a particular group of people.

Sports events are social events that are increasingly present in media and social networks, and these events have a social impact in which aspects such as the uncertainty of the outcome are an incentive to follow them up. In this sense, in recent years, numerous investigations have been carried out to analyse the social impact of these events on their host communities (González-García, Añó, Parra, & Calabuig, 2018; González-García, Parra, Calabuig, & Añó, 2016; Parra, Añó, Calabuig, & Ayora, 2016; Parra, Elasri, Triadó, & Aparicio, 2016; Parra, González-García, Añó, & Ayora, 2016). According to Roche (2000), a major event is a large-scale event that includes both commercial and sporting events and refers in its definition to the dramatic and attractive character of the population that they possess.

Considering the literature on research of sports events, we find contributions, such as Masterman (2014), in which different types of events are established, and, among them, planned events are those events that arise with a clear objective and purpose. According to Cerezuela (2003), sports events have two fundamental characteristics, the first of which is that during the planning of the event, the seasonality, as well as the organizational complexity and the public attention are priority elements. The second characteristic is that sporting events, although usually of short duration, have a significant long-term influence on the locations where they are held. In addition, during the event, positive aspects are also obtained. As Añó (2003) states, the so-called major sports events have a great social repercussion, and this translates into the presence of the event in

the media; thus, the event becomes a source of income; the attendance of the public, sponsors and income, such as box office sales or the sale of objects, should be added to these aspects (Añó, 2011).

Perceived Quality

The term “quality” has been understood from different points of view throughout the literature. In the literature, we discovered the vision of Gronroos (1984), for whom the concept of quality arises from the comparison and assessment made by users between the expectations they have of a product and what they actually receive. The authors of other references in this field argue that quality can be broadly defined as the excellence or superiority of a product and, therefore, the perceived quality will relate to how the consumer generates a judgement about the excellence or superiority of that product (Zeithaml, 1988). Following the proposal of this same author, we found a comparison that is very important to comprehend in order to understand quality. This comparison is the one that addresses the concepts of objective quality and subjective quality, which is a fundamental pillar in terms of work and quality management from the point of view of companies.

Objective quality can be defined as the technical superiority or excellence of a product, which is a measurable superiority that is verifiable by pre-established standards (Monroe & Krishnan, 1985). On the other hand, subjective quality is related to the definition that we mentioned earlier by Zeithaml (1988), in which there is a judgement made by the consumer that determines the superiority or inferiority of a product from his point of view that makes his purchasing intentions go in one direction or another. This subjective quality has a higher level of abstraction and it is not related to a specific attribute; it is more oriented towards an overall assessment. In the levels of abstraction, we can go from a low level, which would correspond to an attribute of the product, to a high level, which would be related to the perception of its value. Therefore, it is important to know that when there is objective quality there is not always subjective quality and vice versa; this implies that companies have a margin of work in which they either try to create a quality product and then transmit this superiority to the population of interest or they try to create subjective quality so that their product, despite not having an objective superiority over competing products, does have a competitive advantage. In this task, a fundamental element of work is the perception of the brand, because if we work with it in the right way, we can get users to perceive the attributes and characteristics of our brand and associate them with it, without the brand necessarily having them. This is because most consumers are not able to assess the objective quality of a product, so we tend to buy based on the subjective quality we believe it has. This situation leaves an enormous margin of work for brands, since subjective quality is a perception and, as such, it can be modified. In the same way that there is objective and subjective quality, there is brand identity and brand image, that is, what the company wants the brand to be and what consumers actually perceive.

As we have seen, the concept of quality can be understood from different points of view, and can even sometimes be confusing, since users have different criteria, and what is an indicator of quality for one person may not be an indicator for another person. Following the contribution of Reeves and Bednar (1994), quality can be seen from four different approaches: (1) quality as excellence, where it is understood to be related to achieving better results; (2) quality as a value, this being an approach that takes greater account of customers' decisions, since quality will depend not only on the quality of the product in this case but also, for example, on the price that must be paid for it, which will cause users to assess whether what is offered to them is in line with the price they pay; (3) quality as an adjustment to specifications, i.e., understanding quality as achieving pre-established standards or specifications; and (4) quality as meeting user expectations. The last approach gives more importance and participation to the consumer, because depending on what they understand to be their preferences and expectations, they will feel less satisfied. These user needs may change over time, so it is important to establish review times to determine whether user opinions have changed in this regard, so that actions can be adjusted to respond effectively to these new demands.

Service Quality

The quality of service can be understood as the convenience it has for covering the needs of the client (Steenkamp, 1990). Some authors, such as Koelemeijer, Roest and Verhallen (1993), understood that this definition of quality of service was only appropriate for the quality of products. One of the visions that is a historical reference of the quality of service is that of Parasuraman, Zeithaml and Berry (1988), who define the perceived quality of service as a global judgement and an attitude that is related to the superiority of service. If we apply this concept to the world of sports, the perceived quality of sports services can be understood as a measure of the judgements made about the global excellence of the person providing a sports service, which is related to the satisfaction of the requirements as well as the desires and expectations of the users of a sports service (Mundina & Calabuig, 1999). In this sense, it is necessary to consider possible mismatches between the expected service and the perceived service (Parasuraman et al., 1985). Depending on whether these imbalances are more or less intense and whether they are in one direction or another, the quality of service will be higher or lower (Zeithaml, Berry, & Parasuraman, 1988).

Satisfaction

The concept of satisfaction is a key element for business success, as satisfied users will be more loyal to our service and will recommend it more, thus, satisfaction ensures the viability and sustainability of the service. Satisfaction has been understood as a global assessment, which is based on the customer's buying and consumption experience over a period of time (Anderson, Fornell, & Lehman, 1994). On the other hand, Yu and

Dean (2001) state that satisfaction is a global measure of a set of satisfactions, which come from previous experiences of the consumer. Some of the definitions are more oriented towards satisfaction as a result, while others make more reference to the consumer's evaluation process in relation to the product.

If we look at the concept of service satisfaction, as explained by Bitner (1990), consumers are satisfied when they compare service performance with previous expectations for the same service performance, thus, if expectations are met, there will be satisfaction, and if expectations are above the perceived service performance, there will be no satisfaction.

Satisfaction has a direct relationship with service quality (Brady & Cronin, 2001; Cronin, Brady, & Hult, 2000), and numerous studies have focused their research on the factors that have a significant influence on service user satisfaction (Alexandris, Zahariadis, Tsorbatzoudis, & Grouios, 2004; Bodet, 2006; Calabuig & Saura, 1999; Calabuig, Mundina, & Crespo, 2008).

Method

Sample

The participants of the study are spectators of a Spanish athletics championship. Of the 450 respondents, 270 were men and 180 women, representing 60% and 40% of the sample, respectively. With regard to the profile of the respondents, based on the sociodemographic data collected in the questionnaire, we can first say that the average age of the men who have taken part in the study is 36.30 years old (SD 12.65), while in the case of women it is 32.95 (SD 11.02). For attendance at sporting events, 11 people (2.4%) attended an event for the first time, 36 (8%) had attended only athletics events, 47 (10.4%) had attended other events but not athletics and finally 356 (79.1%) had attended other sporting events including athletics before.

Instrument

The instrument used was a questionnaire based on existing literature, which was made up of a total of 6 areas. The first of these areas concerns gathering information on the sociodemographic aspects, which is followed by an area dedicated to perceived quality, wherein the Brady and Cronin scale (2001) was used; this scale was adapted for our target audience, the spectators, and it is made up of 4 dimensions referring to perceived quality: the personnel, the tangibles, the environment and the outcome. In the third and fourth areas, we have a section dedicated to the quality of global service, which was formed by a scale that was adapted from Hightower et al. (2002) and an area of general satisfaction that was adapted from these same authors. At the end of the survey, we found two areas extracted from Mundina et al. (2005), the first of which is devoted to the elements of the competition (satisfaction with the result, with the referee and with the performance of the athletes) and the second to obtain information about the future intentions of the spectators.

Procedure

The questionnaire was administered to the spectators through the collaboration of volunteers that were trained specifically for the event (students and teachers who were specialized in the area of physical education). For this purpose, three temporary spaces were chosen: during the last moments of the competition, after the end of the competition, and at the exit of the installation. During the fieldwork, 492 questionnaires were collected, of which 450 were considered valid. Forty-two questionnaires were deleted because they were incomplete, showed inconsistent data or were filled in by viewers under the age of 18; we felt that it was inappropriate to include these respondents in the analysis of the data.

Statistical Analysis

First, exploratory factor analyses and reliability analyses have been carried out to check the suitability of the sample for this type of test and the reliability of the scales used. Subsequently, descriptive analyses have been carried out for the analysed variables: age, gender and pre-event attendance; these analyses were accompanied by comparisons, specifically Student's t and ANOVA tests for each factor, in an attempt to find possible differences that depend on the characteristics of each variable with respect to these groups. Finally, a linear regression analysis has been carried out, wherein the independent variables were taken as the different quality dimensions and the competition elements variable; this regression analysis was used to check if these variables significantly predict the satisfaction of the spectators of a sports event and to what extent they do it.

Results

Principal component analysis (PCA) and psychometric properties

An analysis of the reliability and validity of the scales used has been carried out. The scale of perceived quality that was used to measure the opinions of the spectators at sporting events proved to be valid and reliable, so we wanted to test its suitability in a context such as a Spanish Athletics Championship.

First, a principal component analysis has been carried out, with the intention of proving the sample suitability of the study and to prove that the matrix is suitable for carrying out the factor analysis. As seen in Table 1, the value of the Kaiser-Meyer-Olkin coefficient is therefore .90 higher than the established criterion of

.50 (Tanaka & Huba, 1989) and the Bartlett's test of sphericity was significant ($P < .001$), which confirms that factor analysis is a suitable statistical technique to facilitate the analysis of linear associations between variables.

Table 1. Kaiser-Meyer-Olkin test and Bartlett's test of sphericity.

| MEASURE OF SAMPLING ADEQUACY | |
|------------------------------|----------|
| Kaiser-Meyer-Olkin (KMO) | .903 |
| Chi-Square approximate | 4951,496 |
| Df | 276 |
| Sig. | .000 |

Subsequently, the data obtained from the measurement of the perceived quality scale of Brady and Cronin (2001), which was adapted in this case for a sporting event such as the Spanish Athletics Championship, were acquired using a principal component analysis with varimax rotation. Thanks to this analysis, it has been possible to obtain the 4 foreseen factors, which allow a total explanation of the variance of 58.95% (see Table 2). The rotated factorial structure allows the variables that are strongly correlated to each other to be grouped together, presenting high saturation values in the same factor and lower saturation values in the other factors.

Table 2. Factorial structure of perceived quality scale for spectators.

| ITEMS OF FACTORIAL DIMENSIONS | IQ | OQ | TQ | EQ |
|---|----------------|----------------|----------------|----------------|
| | $\alpha = .91$ | $\alpha = .81$ | $\alpha = .84$ | $\alpha = .82$ |
| Eigenvalue | 4.27 | 3.68 | 3.66 | 2.52 |
| Percentage of variance | 17.79 | 15.36 | 15.28 | 10.52 |
| Employees are willing to help spectators. | .84 | | | |
| The employees are kind. | .82 | | | |
| In general, I would say that my relationship with the event staff has been excellent. | .81 | | | |
| The employees are concerned about the correct running of the event. | .77 | | | |
| Event employees do their job well. | .73 | | | |
| I think the employees are well-trained in their work. | .69 | | | |
| See a bad show (not record) / See a good show. | | .70 | | |
| Repress my emotions / Express my emotions. | | .69 | | |
| Feeling bad / Feeling good. | | .65 | | |
| Watch my favourite athletes lose / Watch my favourite athletes win. | | .64 | | |
| Do not forget the daily worries / Forget my daily worries. | | .64 | | |
| Not enjoying athletics / Enjoying athletics. | | .64 | | |
| Discharge stress / Build up stress. | | .62 | | |
| Have a bad time / Have a good time. | | .60 | | |
| The facility meets the conditions for a good development of the competition. | | | .79 | |
| The facility has impressed me. | | | .77 | |
| In general, the facility and the atmosphere of the event are excellent. | | | .75 | |
| The design of the facility allows me to follow the development of the event. | | | .71 | |
| The ambient conditions are pleasant (temperature, light, sound...). | | | .56 | |
| In general, the complementary services (toilets, bar, etc.) are of good quality. | | | .47 | |
| There is a pleasant atmosphere at this event. | | | .49 | .48 |
| I did not have any problems with the rest of the spectators. | | | | .79 |
| I have been able to express my emotions without any problems. | | | | .77 |
| Spectators behave correctly. | | | | .75 |

Note: IQ (Interaction Quality), OQ (Outcome Quality), TQ (Tangibles Quality), and EQ (Environment Quality).

In the same way, given that the regression analysis will be carried out later, the section on elements of competition has also been introduced, and an exploratory factorial analysis of this scale has been carried out to demonstrate its unidimensionality and its suitability for use in this study. As we can see in Table 3, the value of KMO is above .50 (Tanaka & Huba, 1989), and Bartlett's sphericity test is significant ($P < .001$).

Table 3. Kaiser-Meyer-Olkin test and Bartlett's test of sphericity.

| MEASURE OF SAMPLING ADEQUACY | |
|------------------------------|--------|
| Kaiser-Meyer-Olkin (KMO) | .639 |
| Chi-Square approximate | 458,89 |
| Df | 3 |
| Sig. | .000 |

On the other hand, following the same procedure as with the previous scale, a principal component analysis with varimax rotation was used in the factorial analysis. As seen in Table 4, the cumulative percentage of the explained variance of the variable is 69.70%.

Table 4. Factorial structure of the scale of competition elements for spectators.

| ITEMS FACTORIAL DIMENSIONS | CE |
|--|----------------------|
| Eigenvalue | $\alpha=.78$ 2.09 |
| Percentage of variance | 69.70 |
| I am very satisfied with the performance level offered by the athletes | .88 |
| I am satisfied with the result of the competition | .89 |
| The judges' arbitration has been fair | .72 |

Note: CE=competition elements.

Psychometric properties of scales

To calculate the reliability of the measurement scales used, the Cronbach alpha value has been considered (see Table 5). For its analysis, the items that make up each of the scales of measurement of the viewers' opinions, which correspond to the different constructs studied, have been included. As we can see, the resulting different Cronbach alpha coefficients are between the values of .78, which was obtained for the scale of competition elements, and .91, which corresponds to the dimension of the quality of the interaction; therefore, the Cronbach alpha coefficients were higher than the criteria of .70 in all cases (Hair, Black, Babin, Anderson, & Tatham, 2006).

Table 5. Reliability of the quality dimensions and competition elements for spectators

| DIMENSIONS | Cronbach Alpha |
|----------------------|----------------|
| Interaction Quality | .91 |
| Tangibles Quality | .84 |
| Environment Quality | .82 |
| Outcome Quality | .81 |
| Competition Elements | .78 |

Evaluation of the event according to the age of the spectators

The viewers' evaluations of the scales have been analysed. In this case, age ranges (18-23, 24-35 and over 35) have been created to make the comparison and to check if there are significant differences in the opinion of the respondents that depend on whether they belong to one age range or another. Table 6 shows the average scores for each of the dimensions analysed in terms of age range. In the score of 18 to 23 years, we see that the best score appears in the environment quality dimension with a score of $6.11 \pm .84$, while the worst score is in the outcome quality dimension ($5.05 \pm .69$); note that, although both scores are positive, the measurement scale is from 1 to 7. In the second age range, 24-35 years, we see that the best and worst scores are the environmental quality ($6.04 \pm .82$) and the outcome quality ($5.08 \pm .65$) dimensions, respectively. Finally, in the age range over 35 years, we see that, as in the previous cases, the best score appears in the environment quality dimension ($6.16 \pm .89$) and the worst in the outcome quality dimension ($5.31 \pm .57$).

Table 6. Evaluation of the quality dimensions of the spectators according to their age.

| DIMENSIONS | F | Sig. | 18-23 | | 24-35 | | >35 | |
|----------------------|------|-------|-------|------|-------|------|------|------|
| | | | Mean | SD | Mean | SD | Mean | SD |
| Interaction Quality | 3.40 | .03* | 5.41 | 1.00 | 5.26 | 1.09 | 5.55 | .98 |
| Tangibles Quality | 3.34 | .04* | 5.48 | 1.03 | 5.26 | 1.99 | 5.53 | .97 |
| Environment Quality | .89 | .41 | 6.11 | .84 | 6.04 | .82 | 6.16 | .89 |
| Outcome Quality | 7.79 | .000* | 5.05 | .69 | 5.08 | .65 | 5.31 | .57 |
| Competition Elements | 1.65 | .19 | 5.53 | 1.03 | 5.49 | .92 | 5.67 | 1.01 |

As the table above shows, after analysing the factors with ANOVA, significant differences were obtained between the groups analysed in the dimensions of interaction quality, tangibles quality and outcome quality. To know more conclusively where these differences are shown, post hoc tests were used. After seeing the results of these tests (see Table 7), we can affirm that there are statistically significant differences between spectators aged 24-35 and spectators over 35 in the interaction quality and tangibles quality dimensions, which both had a $p < .05$ significance. Similarly, significant differences were found in the outcome quality dimension between the 18-23 and 24-35 age groups and between the 24-35 and the 35+ age groups; these differences in the outcome quality dimension were below the limit of .01 ($p < .01$).

Table 7. Post hoc tests of quality dimensions according to the age of the spectators.

| DIMENSIONS | 1 vs 2 | 1 vs 3 | 2 vs 3 |
|----------------------|--------|--------|--------|
| Interaction Quality | | | * |
| Tangibles Quality | | | * |
| Environment Quality | | | |
| Outcome Quality | | ** | ** |
| Competition Elements | | | |

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Subsequently, following the same approach, we wanted to check whether significant differences could be found in the gender variable (see Table 8), i.e., whether men and women value the different dimensions that have been analysed in a significantly different way. After obtaining the results, if we look at the descriptive values, we can first see that women's opinions are more generally positive than men's. For the men, the best-rated dimension is the environment quality with a score of $5.97 \pm .92$, while the worst-rated dimension was the outcome quality ($5.12 \pm .63$). For the women, the most valued dimension was the environment quality ($6.32 \pm .70$) and the least valued dimension was the outcome quality ($5.26 \pm .64$). As we can see, significant differences only appear in two of the analysed dimensions: the environment quality ($P < .01$) and the competition elements ($P < .05$).

Table 8. Evaluation of the quality dimensions of the spectators according to gender.

| DIMENSIONS | F | Sig. | Males | | Females | |
|----------------------|------|--------|-------|------|---------|-----|
| | | | Mean | SD | Mean | SD |
| Interaction Quality | 1.45 | .230 | 5.30 | 1.06 | 5.58 | .98 |
| Tangibles Quality | .001 | .972 | 5.39 | 1.01 | 5.47 | .99 |
| Environment Quality | 6.81 | .009** | 5.97 | .92 | 6.32 | .70 |
| Outcome Quality | .144 | .704 | 5.12 | .63 | 5.26 | .64 |
| Competition Elements | 4.25 | .04* | 5.39 | 1.01 | 5.85 | .87 |

Note: * $p < .05$.

Finally, in relation to the comparison of results based on the attendance of spectators at sporting events, we have differentiated between those who attend an athletics event for the first time and those who have already attended other types of events, including athletics. As seen in Table 9, in the dimensions of interaction quality, tangibles quality and competition elements, first-time attendees rate these dimensions positively ($5.57 \pm .97$, $5.51 \pm .83$, and $5.60 \pm .92$, respectively), while those who have previously attended events offer a lower score (5.39 ± 1.05 , 5.41 ± 1.02 , and $5.57 \pm .99$, respectively). On the other hand, with regard to the dimensions of environment quality and outcome quality, we can see that those who have already attended other events offer a better evaluation of these dimensions, with values of $6.11 \pm .85$ and $5.20 \pm .64$, respectively. In contrast, for the case of spectators attending the event for the first time, these values were $6.10 \pm .89$ and $5.02 \pm .60$, respectively. Once the descriptive statistics had been checked, the comparison between the two groups was carried out with the intention of seeing if there were differences in any of the dimensions analysed. The results indicate that we can only say that there are statistically significant differences in the outcome quality variable ($P < .05$).

Table 9. Evaluation of the quality dimensions according to the spectators' attendance at athletics events.

| DIMENSIONS | F | Sig. | Attend an athletic event for the first time | | Attended sporting events including athletics | |
|----------------------|------|------|---|-----|--|------|
| | | | Mean | SD | Mean | SD |
| Interaction Quality | 1.07 | .24 | 5.57 | .97 | 5.39 | 1.05 |
| Tangibles Quality | 6.89 | .37 | 5.51 | .83 | 5.41 | 1.02 |
| Environment Quality | .01 | .94 | 6.10 | .89 | 6.11 | .85 |
| Outcome Quality | .07 | .04* | 5.02 | .60 | 5.20 | .64 |
| Competition Elements | .86 | .85 | 5.60 | .92 | 5.57 | .99 |

Linear regression for the satisfaction of spectators

A linear regression analysis has been carried out with the intention of checking whether the variables belonging to the perceived quality (interaction, tangibles, environment and outcome) or the variable of competition elements significantly predict the satisfaction of the spectators at a sporting event (see Table 10).

Based on the extracted results, we observed that all the variables proposed in the regression model significantly explain the satisfaction of the spectators ($F(121.21) = 250.79$; $p < .001$). For its predictive capacity, the model is capable of predicting 59% of the satisfaction variance ($R^2 = .591$; $R^2_{adj} = .586$). As we can see, the variables that have more weight in the explanation of satisfaction are the competition elements ($\beta = .36$; $p < .001$), followed by the outcome quality ($\beta = .27$; $p < .001$). The rest are the tangibles quality ($\beta = .18$; $p < .001$), the interaction quality ($\beta = .12$; $p < .01$) and the environment quality ($\beta = .10$; $p < .05$).

Table 10. Predictive model of spectator satisfaction.

| Predictive Variables | Unstandardized coefficients | | Standardized coefficients | T | Sig. |
|----------------------|-----------------------------|------------|---------------------------|------|------|
| | B | Std. Error | Beta | | |
| Interaction Quality | .12 | .04 | .12 | 3.19 | .002 |
| Tangibles Quality | .18 | .04 | .18 | 4.32 | .000 |
| Environment Quality | .12 | .05 | .10 | 2.52 | .012 |
| Outcome Quality | .42 | .06 | .27 | 7.57 | .000 |
| Competition Elements | .37 | .04 | .36 | 9.69 | .000 |

Discussion

Regarding the SERVQUAL model from Parasuraman et al. (1988) and the five dimensions it proposes, 4 of the dimensions refer to the interaction between the user and the employee (reliability, responsiveness, security and empathy), while only one involves the analysis of the tangibles. Thus, we decided to use the Brady and Cronin model (2001) that places less importance on the relationship between employees and spectators, since we consider that an event of this nature does not require such importance and therefore we believe that this three-dimensional model is better suited to the needs of the research. After observing the results obtained in our research through an analysis of principal components, we have found that our data show the formation of the four dimensions proposed by authors Brady and Cronin (2001) with good internal consistency indices: interaction quality (which refers to personnel), tangibles quality, environment quality and outcome quality.

As for the dimensions mentioned above, in our case, the ones that are valued the most by the spectators are the environment quality and the outcome quality, which coincides with the study by Alexandris et al. (2004). We have found works by other authors that use alternative models, such as Kelley and Turley's (2001), in which they developed a scale for sporting events, and they defined nine quality attributes of the event: access, price, employees, complementary services, comfort, showtime, convenience, smoking and experiences with the game). Another example of a model is that of Zhang, Lam, Connaughton, Benett and Smith (2005), which is aimed at measuring the satisfaction of spectators at hockey events, which involves four factors: the ticket service, competition, services inside the stadium and accessibility. Following this line of authors who elaborate new research to generate scales that can be adapted to different types of services, we find contributions dedicated to the analysis of professional soccer leagues (Yusof and See, 2008), to the study of the fitness industry (Alexandris et al., 2004), the perception of perceived quality in fitness centres (García-Fernández, Cepeda-Carrión, & Ruiz, 2012) or the quality perceived by spectators of sporting events (Calabuig, Mundina, & Crespo, 2010).

Along the same lines, continuing with the theme of fitness clubs, we found Bodet's work (2006), in which he analyses the satisfaction of users of the services of various fitness clubs in France, and we also found the work of Mañas, Giménez, Muyor, Martínez-Tur and Moliner (2008), where they state that the dimension of the tangibles is a predictor of the satisfaction of customers of a private sports centre in Almería. In relation to the tangibles, but in the opposite sense, Greenwell, Fink and Pastore (2002) assert that the tangibles of the installation, in this case an ice hockey event, do not have a significant influence on the satisfaction; on the other hand, if we treat the elements of the stadium as a set of tangibles, they do predict satisfaction significantly.

Based on our study, we see that the dimensions of perceived quality significantly predict spectator satisfaction of the event, as was the case with the work of Alexandris et al. (2004) for the fitness industry. In our study, in addition, the competition elements variable was also significant; this variable was related to the uncertainty that usually exists regarding the development of some aspects of the event, such as the performance that the players will have or if the arbitration was successful. In relation to sociodemographic variables, we first analysed age. In our case, spectators over 35 years of age perceived the different aspects of the event more positively. This is consistent with the results of the study conducted by Rodríguez, Agudo, García and Herrero (2003) on football events. On the other hand, Crespo, Pérez and Calabuig (2008) also found differences in age in football events, specifically in those over 35, which coincided with the results obtained in our analysis. With regard to gender, studies have shown differences between men and women in the perceived quality of service, such as Afthinos, Theodorakis and Nassis (2005) in fitness centres, Calabuig et al. (2008) in nautical sports services or Dorado (2007) in municipal sports services. Finally, we included a variable to consider the experience of the spectator with respect to their previous attendance at sporting events. In this sense, the spectators who did not have previous experience place a higher value on the quality related to the tangibles of the event, which contrasts with what was obtained in the research by Pérez et al. (2008a), in which those who had already attended other events rated tangibles more positively.

Conclusions

In conclusion, the dimensions of the quality perceived together with the competition elements variable significantly explain the satisfaction of the spectators of the Spanish Athletics Championships. Specifically, the most important aspects for a spectator to be satisfied with the event are the competition elements, followed by the outcome quality. Thus, it is clear that, although there are other relevant aspects, how the competition develops and what is produced by the competition are the key factors regarding spectator satisfaction. In addition, with regard to the sociodemographic aspects analysed, it has been verified that viewers aged 24-35 and those over 35 exhibit differences in the interaction quality and the tangibles quality, and the outcome quality has shown differences between the 18-23 and 24-35 age groups and differences between those aged 24-35 and those over 35; in these cases, the spectators over 35 always had more positive ratings. Based on gender, women generally have a more positive opinion than men regarding the variables of environment quality and competition elements. Finally, depending on the spectators' prior attendance at sporting events, we see how those who attend an athletics event for the first time place a higher value on the aspects of interaction quality, tangibles quality and competition elements, while those who have already attended other sporting events, including athletics, place a higher value on the aspects of environment quality and outcome quality.

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