

Article

Segmentation of Participants in a Sports Event Using Cluster Analysis

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Abstract: The aim of this study is to analyze the segmentation of participants in a sports event according to their perceived quality, perceived value, satisfaction, and future intentions, in order to better understand how each user profile behaves. The sample was made up of 195 participants of a marathon aged between 18 and 65 and the instrument for collecting information consisted of a questionnaire structured in four blocks referring to their participation in popular races, their sports habits, and their opinions according to the aforementioned variables. Using SPSS version 25, frequencies and percentages were analyzed to find out respondents' opinions. Subsequently, a cluster analysis was carried out to obtain information on how the clusters created from the variables under study aforementioned are distributed. The results of the hierarchical cluster analysis allow us to conclude that there are two differentiated groups of participants that have been called Non-Conformists and Conformists, characterized by having low average ratings and high ratings, respectively. These groups show significant differences in their opinion about perceived quality, perceived value, satisfaction, and future intentions, providing useful information to organizers, to better understand their opinions, better manage events, and better handle variables that are key to business success.

Keywords: segmentation; cluster analysis; sporting events; perceived quality; perceived value; satisfaction; future intentions

1. Introduction

The sports field is a sector in continuous growth, also in the context of sports events, where we find a wide offer increasingly segmented and personalized to different target audiences. This growth in sporting events has attracted the attention of both organizers and researchers [1] and has become an important source of income, providing organizers the desired profitability [2]. However, in addition to the economic aspect, the events are also a source related to other impacts, such as the social impact of the residents in the host city [3,4]. If we look at the scientific literature, the study of user segmentation in the field of sport is a topic that is gaining ground [5–8]. This is due, as mentioned above, to the fact that the market has been changing, having a wide range of products adapted to many customer profiles, so that marketing is no longer only oriented to one target but also specializes in reaching the person buyer [9].

The study of user segmentation is, therefore, interesting for managers, as it has been shown that it can lead to an increase in the participation in events [10]. Furthermore, this approach means that managers can carry out more effective strategies and that the organization can differentiate itself from the rest in such a competitive environment by creating advertising campaigns aimed at its target audience and by adapting the service and pricing policies more accordingly [11]. This aspect of segmentation is being studied from different points of view, including those that do so from a more theoretical point of view with the aim of understanding user attitudes and changes in behavior [12], which is the objective sought in this study.

The interest on the part of event organizers has been accompanied by a growth in the scientific literature related to sporting events. This literature has analyzed a variety of topics, including the perceived quality of the event by those attending [13] and the aforementioned studies on the impact of tourism [14–16] or the development of measuring instruments adapted to the specific context of sporting events [17–20]. In the case of this study, the concepts of perceived quality, perceived value, satisfaction, and future intentions are presented. When we talk about perceived quality, this concept has usually centered on several historical definitions, which have been maintained until the present day. One of them is the one provided by Zeithaml [21] in which it is argued that perceived quality will have to do with the customer's perception of the level of excellence of the product, in this case, being the product the sports event. On the other hand, we find the definition by Grönroos [22], which holds that perceived quality will be related to the fulfillment of customer expectations, that is, if the customer has the feeling that what he expected from the product has been fulfilled, his perceived quality will be higher. This idea was also argued by other relevant authors [23]. In more recent contributions, specifically focused on the field of sports, this aspect of perceived quality has been analyzed from different perspectives, especially analyzing the relationship between perceived quality in sports events and the future intentions of the attendants to see their relationship with the tourism impact [24,25] and increasingly the analysis of online aspects related to the events [26,27]. Perceived quality is a concept that has also been widely related to the other variables of the study, mainly value and satisfaction [28,29] and all of them in relation to the future intentions of users [30–32].

On the other hand, perceived value is understood as the overall assessment made by consumers of the benefits and cost of obtaining those benefits [33] although there are different definitions depending on the approach from which it is viewed, since approximations have been made to this concept from its relation to satisfaction and future intentions [34,35] from its relation to quality [36,37] as well as from its relation to price and commercial strategies [38,39]. In relation to the quality and perceived value discussed above, we find satisfaction, which is a concept that has to do with the overall assessment or evaluation that consumers make after trying a product [40]. This aspect is logically fundamental for any company since the scientific literature has maintained over time that the experiences that users have, in this case, the participants in the event, will influence their future behavior [41–43]. This satisfaction is an aspect that has also been extensively studied in the sports context since its influence on the future intentions of consumers is widely known, and it is obviously interesting for any other area, both at the level of loyalty [44–47] and at the level of recommendation [48–50].

Although at the level of sports services, we find examples of studies related to segmentation [51–53], these are not as common in sporting events, finding fewer studies in that line [4,54]. Therefore, this article represents a contribution that brings new information to an area where the study of user profiles is not very extended. The aim is to contribute to the scientific literature in this regard, analyzing the segmentation of participants in a sports event according to their perceived quality, perceived value, satisfaction, and future intentions, and also according to their sporting habits, in order to better understand how each user profile behaves. At the same time, the results will provide useful information to the organizers, allowing them to better understand the opinions of different customer profiles and to better manage the events, being able to better handle variables that are key to business success. After this theoretical introduction, the article shows a section of materials and methods, indicating the sample of the study, the instrument used, the procedure followed to carry out the research, and finally,

the analyses performed, in this case, a cluster analysis that allows us to analyze the segmentation of the participants of the event. Subsequently, the results of the cluster analysis are shown, followed by the discussion section where the approach is contrasted with other studies and the section where we conclude what we can extract from the study conducted. Finally, the practical implications of the research, as well as the limitations and future lines of research, are shown.

In relation to this purpose of the study, two hypotheses have been put forward, which will be tested later through the cluster analysis:

Hypothesis 1. *There are different groups representing different user profiles in the sporting event.*

Hypothesis 2. *The different clusters found show significant differences in terms of perceived quality, perceived value, satisfaction, and recommendation.*

2. Materials and Methods

2.1. Sample

The sample for this study was made up of participants in the Pacasmayo-Peru marathon aged between 18 and 65. The total sample was 195 individuals, which implies a sampling error of $\pm 4\%$ for a 95% confidence interval. Of the total sample, 36.4% of the respondents were women and 63.1% were men, while, in reference to age, the average was 37 years, with the mode (the most common age) being 30 years. On the other hand, with regard to the educational level, 87.6% had university studies, followed by 12.4% who had secondary education. Regarding occupation, most of the participants had a job (86.1%), while others were students (9.3%), retirees (2.1%) and, finally, unemployed (2.6%). The participants were then asked about their socio-economic level according to their perception, offering as options high, medium, and low levels and what their nationality was. The majority of them considered themselves of medium level (81.1%), while regarding nationality, 98.4% were national participants and 1.6% were foreigners.

2.2. Instrument

The instrument for collecting the information consisted of a questionnaire structured in four blocks made up of standardized scales adapted from previous studies, to which were added some final variables aimed at collecting the socio-demographic information of the participants. In the first and second block of the questionnaire, we included the questions referring to their participation in popular races and their sports habits, respectively. In the third block, the opinions about the marathon were collected according to the perceived quality, value, satisfaction, and future intentions. The scale of perceived quality used was the SERVPERF by Cronin and Taylor [55], while for the satisfaction of the event, the scale by Hightower et al. [56] was used. On the other hand, to measure the perceived value, the PERVAL scale by Sweeney and Soutar [29] was used and for future intentions, the scale by Zeithaml et al. [57]. All instruments contained items with Likert-type response scales with ratings ranging from 1 (strongly disagree) to 5 (strongly agree). Finally, as mentioned above, block four contained the socio-demographic variables.

2.3. Procedure

After having reached an agreement with the organization of the event, on the realization of the research, an online questionnaire was created through the LimeSurvey application, to later send the link of the mentioned questionnaire to the target population. Together with the link to complete the questionnaire, the participants were told in the email the purpose of the study, which was anonymous and had an exclusively academic purpose. With this, the social networks of the event itself were used

to publicize the survey. Once all the possible answers had been obtained, the survey was closed and the data was collected for the subsequent statistical analysis.

2.4. Statistical Analysis

The data were analysed using SPSS version 25 software. On the one hand, frequencies and percentages were analyzed to find out how respondents' opinions on the topics related to the event were distributed. Subsequently, a cluster analysis was carried out to obtain information on how the clusters created from the variables under study (perceived quality, general satisfaction, perceived value, and future intentions) are distributed. To define the profiles and characteristics of the groups, the socio-demographic variables were used (gender, origin, educational level and socio-economic level) as well as the variables on the sports habits of the participants. With the cluster analysis, the aim was to group elements of the sample in such a way that they could create groups that were homogeneous among themselves, and at the same time, these groups were heterogeneous with respect to the other groups formed. In the first instance, the detection of atypicals was calculated using the Mahalanobis distance, in which the distance (D) of each case to the centroid was calculated, and those cases with an excessive distance were eliminated, in this case, only five subjects. To make this decision, we relied on the scientific literature, specifically the contributions of [58,59], where they recommend being very demanding when qualifying a case as an outlier ($p < 0.001$). Once those outliers were detected and eliminated, a hierarchical cluster analysis was performed, using the Ward's method clustering process and as a measure of similarity, the Euclidean distance squared. Based on the extracted data, the dendrogram suggests the creation of two groups. Consequently, a non-hierarchical analysis was performed using k-means, indicating the two groups formed to determine the correct grouping. Therefore, in the results presented, you will find the dendrogram performed in the non-hierarchical analysis, as well as the two groups that were specified to be performed in non-hierarchical k-means analysis, obtaining all the research results based on the applied non-hierarchical k-means analysis.

3. Results

3.1. Analysis of Frequency Distribution According to Their Participation in Popular Races

Regarding the results about the years they have been participating in popular races (see Figure 1), it can be seen that 25.6% of the participants have been running for just one year, followed by 17.4% who have been running for two years and 12.82% for three years, reflecting, therefore, a cumulative 56.9% of those who have been running for one to three years. It is also important to highlight that the participants who have been running for 11, 12, or 13 years represent 31.31% of the total, being this period of time the second one that includes the most cases.

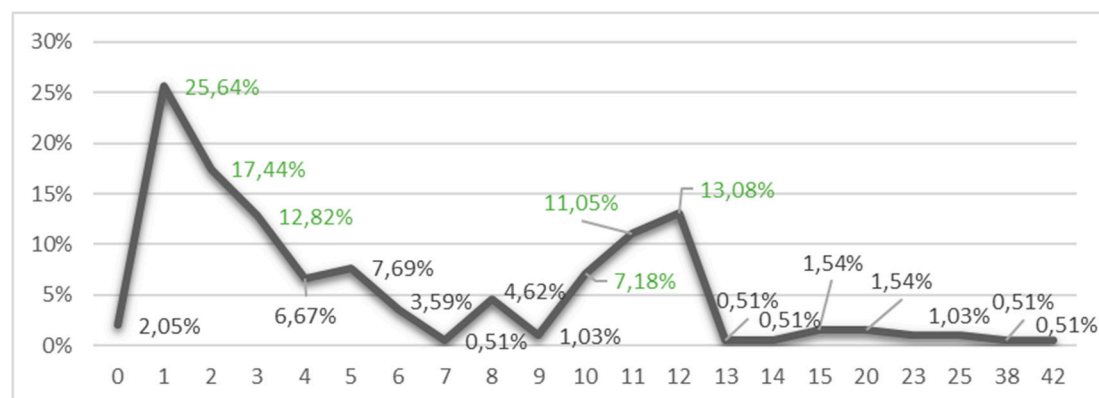


Figure 1. Years they have been participating in popular races.

In terms of the number of races they run per year (see Figure 2), it can be seen that 14.87% of the participants run in 10 races per year, followed by 13.85%, 12.82%, and 10.77% who run in 5, 4, and 2 races, respectively. The rest of the percentages are distributed by different numbers of races, obtaining that the one who runs more participates in 34 races per year and for the one who runs less this event is the first time. It can also be noted that the average number of races in general of the participants is seven per year.

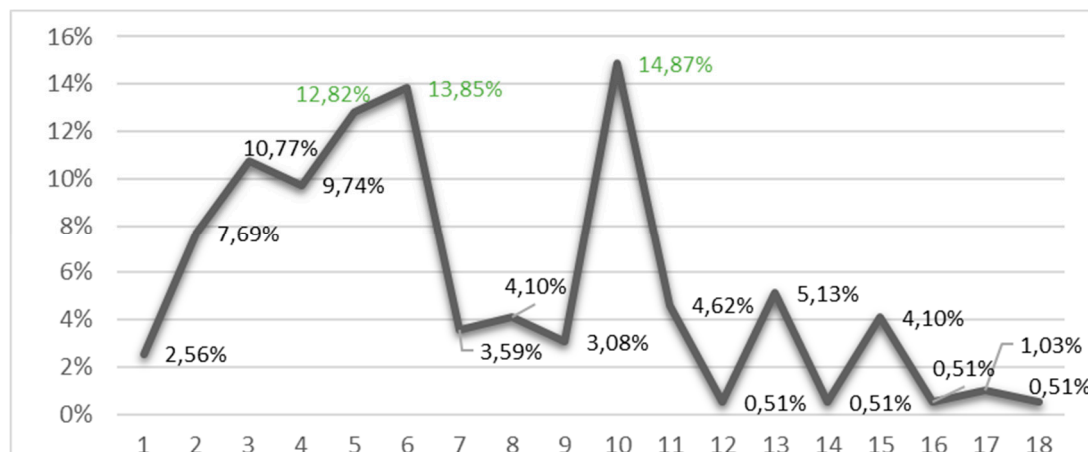


Figure 2. Number of races they run per year.

Finally, we found the data referring to the different distances of the races in which the respondents participate (see Figure 3). As for the preferred distance, participants prefer distances between 10 and 15 km, reflecting 30.3%. Subsequently, we found 27.7% who say they prefer races between 20 and 30 km, with those who prefer distances between 7.5 and 10 km coming in third with 21.5%. Finally, the distance over 30 km is the preferred one for 20.5%, while the least preferred distances are those between 15 and 20 km (19%), between 5 and 7.5 km (11.8%) and those under 5 km (4.6%), respectively.

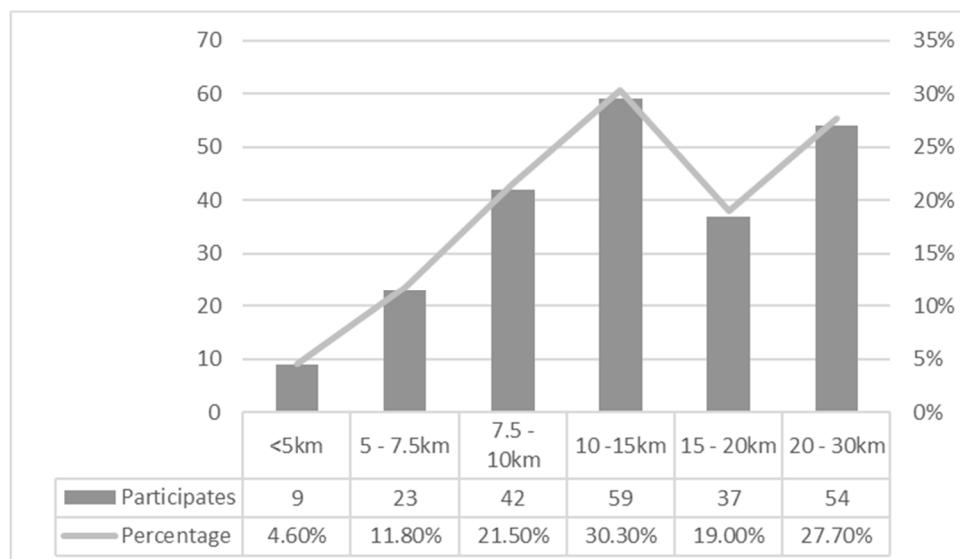


Figure 3. Preferred distance when participating in a race.

3.2. Analysis of Frequency Distribution According to Sports Habits

First, in order to find out if their training is guided by professionals, they were asked if they belonged to any sports clubs: 38.82% had a relationship with a club, while 67.18% carried out their training independently. Once this point was known, the question was asked about the frequency with

which they run per week (see Table 1). In this sense, 51.79% of the participants indicated that they run from three to five times per week, followed by those who run from five or more times per week with 30.77%, with low percentages being those who run once or twice per week with 14.87% and those who run less frequently with 2.56%.

Table 1. Frequency they run per week.

Frequency	%
Less often	2.56
1 or 2 times per week	14.87
3 to 5 times per week	51.79
5 times or more per week	30.77

The next step was to ask who they usually run with (see Table 2), 47.69% of the participants run alone, followed by those who run with club mates (32.31%), remaining with low percentages those who run with friends (12.82%) and those who run with someone from the family and study or work colleagues, with 5.64% and 1.54%, respectively.

Table 2. Who do you usually run with?

Training Partners	%
Mostly alone	47.69
With friends	12.82
With club mates	32.31
With someone from the family	5.64
With colleagues at school or work	1.54

On the other hand, it was also intended to know the level that the runners consider themselves to have (see Table 3): 74.87% of the participants consider they have a medium level as runners, followed by 18.46% who consider they have a low level and 6.67% who consider they have a high level.

Table 3. Sports level they consider to have.

Level	%
Low level	18.46
Medium level	74.87
High level	6.67

Finally, the last aspect consulted with the participants refers to the place where they usually run (see Table 4). The vast majority of participants run outdoors (96.41%), with 3.08% running in a sports facility or gym and 0.51% usually running at home.

Table 4. Type of space or facility where they usually run.

Level	%
Outdoor	96.41
Gym or sports facility	3.08
At home	0.51

3.3. Cluster Analysis According to the Variables of Perceived Quality, Satisfaction, Perceived Value, and Future Intentions of the Participants

Once the frequency distribution of the different aspects of interest was known, the hierarchical cluster analysis was performed, in which, depending on the data extracted, we obtained the dendrogram (see Figure 4) from the analysis. This dendrogram is a graphic representation that organizes the data in subcategories according to the data available in the database. The cases that are similar to each other are grouped together, creating the categories that the analysis considers necessary. In this case, that analysis suggests us to create two categories or groups, representing the two clusters, which are the user profiles found.

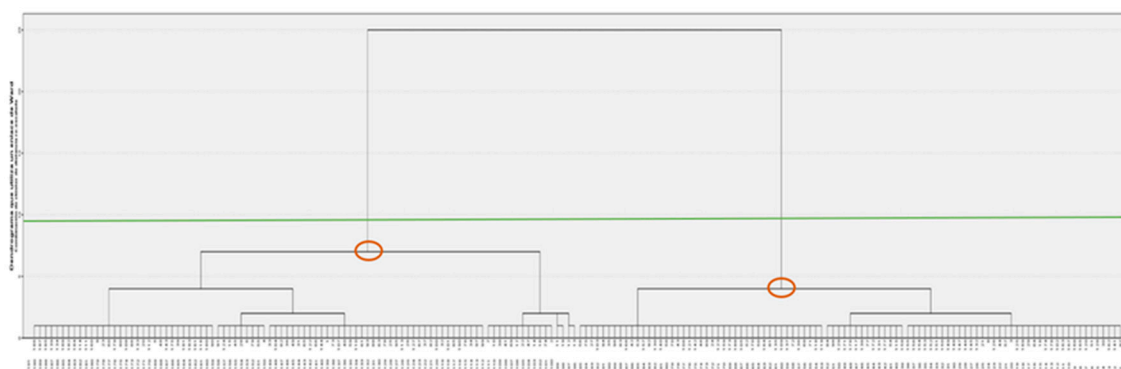


Figure 4. Cluster analysis dendrogram.

3.3.1. Hierarchical Cluster Groups

Once the analysis groups have been determined, Table 5 shows the distribution of cases in the two clusters created by the k-means analysis.

Table 5. Cluster groups created.

Cluster	%	N
1	54.5	104
2	45.5	86

Once this distribution of cases was observed, we could move on to see the differences in the cluster averages according to the variables of perceived quality, satisfaction, perceived value, and future intentions (see Table 6). The groups created were called Conformist and Non-Conformist. The Conformist group is characterized by its high scores, most of which exceed the scores of 4, except for one variable, precisely in the variable of perceived quality, and more specifically, in the sub-dimension of tangible elements. The most important ratings of this group in relation to perceived quality are that the route is visually attractive ($M = 4.90$), and that the timetable is very convenient for running the race ($M = 4.90$). As for the general satisfaction of the event, we see considerably high average ratings, almost reaching the maximum score, the highest being that related to the enjoyment of the race ($M = 4.98$). As for the perceived value of the participants, it can be seen that the emotional dimension is where the highest scores appear, with statements such as that the event makes them feel good ($M = 5.00$) and that participating in the event gives them some pleasure ($M = 4.95$). Finally, with respect to future intentions, he notes that participants will talk well to others about the race if asked ($M = 4.97$).

Table 6. Means of quality, satisfaction, perceived value, and future intentions in both groups.

Variables	N-C Mean	C Mean	P 1vs2
PERCEIVED QUALITY			
The organization of the race has modern equipment (delivery of dorsal, microchips, equipment for the management of results)	3.80	4.67	***
The race route is visually attractive	4.21	4.90	***
The material elements used are visually attractive (fences, mileage signs)	2.97	4.12	***
When the organization commits itself to do something in a certain time frame, it fulfills it.	3.64	4.69	***
When a participant has a problem, the organization is interested in solving it.	3.51	4.64	***
The organization performs the service well at first.	3.58	4.57	***
The organization keeps the schedule.	4.03	4.85	***
The organization does not make mistakes.	2.94	3.97	***
The organizers offer a fast service.	3.45	4.62	***
The organizers are always available to help the participants.	3.69	4.67	***
The organizers' behavior transmits trust to the participants.	3.78	4.74	***
The participants feel safe in their relationship with the organization.	3.75	4.73	***
The organizers are friendly to the participants.	3.86	4.84	***
The organizers give the participants individual attention.	3.39	4.49	***
The race has a convenient schedule for participants.	4.09	4.90	***
The organization takes care of the interests of the participants.	3.65	4.67	***
The organizers understand the needs of the participants.	3.57	4.63	***
GENERAL SATISFACTION			
I'm happy with the experiences I've had in this race.	4.23	4.95	***
I am satisfied with my experiences in this Race.	4.12	4.95	***
I really enjoy participating in this Race.	4.36	4.98	***
PERCEIVED VALUE			
Participating in the Pacasmayo International Marathon makes me feel good.	4.29	5.00	***
Being part of the Pacasmayo International Marathon gives me some pleasure.	4.22	4.95	***
Registration for the race is reasonably priced.	3.80	4.71	***
The Pacasmayo International Marathon offers a good service for what I have paid.	3.66	4.73	***
Participating in the Pacasmayo International Marathon improves the way I am perceived. (How society in general sees me)	3.70	4.72	***
Participating in the Pacasmayo International Marathon makes a good impression on others.	3.95	4.80	***
FUTURE INTENTIONS			
I will participate in the Pacasmayo International Marathon next year.	4.38	4.88	***
I will recommend participation in the Pacasmayo International Marathon.	4.39	4.92	***
I will speak well of the Pacasmayo International Marathon to others if they ask me.	4.34	4.97	***

Note: N-C= Non-Conformist; C= Conformist; *** $p < 0.001$.

The second group named as Non-Conformists, is characterized by much lower scores, as can be seen in Table 6, in the perceived quality, precisely in the dimension of tangible elements and reliability the scores are the lowest in the survey. In this sense, in relation to perceived quality, the statements that indicate whether the tangible elements are visually attractive ($M = 2.97$), and that the organization does not make mistakes ($M = 2.94$), also stand out. On the other hand, with respect to satisfaction, the scores are low in comparison to the other cluster, although they continue to be positive since the statement that is least valued is the one that speaks about satisfaction with respect to the career experience ($M = 4.12$). With regard to the perceived value, low scores are observed when compared to the group

of those in agreement, especially in the statements about whether the price is reasonable ($M = 3.80$), whether the event offers a good service for what has been paid ($M = 3.66$) or whether participating in the marathon improves how they are perceived ($M = 3.70$). After analyzing the means of each group in the different aspects, tests of comparison of means were carried out by means of T-student to see if there were significant differences between the groups in the different elements of analysis. As can be seen, there are differences between the two groups in all variables ($p < 0.001$), which indicates a suitable conformation of that group.

On the other hand, cross tables have been made with the two previously commented clusters, in order to identify the most important and determining characteristics of each group and thus be able to make a more precise segmentation. Together with these cross tables, a chi-square analysis has been carried out to check whether there is a significant relationship between the cluster groups and the variables under analysis. For this more precise segmentation, the main aspects of the groups formed according to the socio-demographic variables are set out below.

3.3.2. Composition of Cluster Groups According to Socio-Demographic Variables (Gender, Provenance, Educational Level, and Socio-Economic Level)

With respect to the formation of groups according to gender (see Table 7), the number of men predominates in the group of Non-Conformists, representing 70.2%, compared to 29.8 % of women. As for the group of Conformist, it can be identified that men represent 53.5%, and women 46.5%, being a more equal distribution in this case. On the other hand, with respect to the provenance of the participants, 98.1% in the group of Non-Conformists are nationals, this percentage being 98.8% in the group of Conformists. Regarding the educational level, both the Non-Conforming and the Conforming groups are mostly represented by persons with university studies, with 83.7% and 86%, respectively. Regarding occupation, 85.4% and 86% have employment, in the groups of Non-Conformists and Conformists, respectively, followed with much lower percentages by those who are studying with 8.7% in the group of Non-Conformists and 10.05% in the group of Conformists. Finally, according to the age group, the highest concentration of individuals in both groups is found among persons from 31 to 45 years old, both in the Non-Conformists (45.6%) and in the Conformists (55.8%). In the case of Non-Conformists, 32% are under 30 years of age and 22.3% are over 46 years of age, while in the case of Conformists, 22.1% are distributed among groups under 30 and over 46 years of age. On the other hand, a T-student test of independent samples was carried out to know in which variable there are differences between the two groups of analysis, finding only in the gender variable values ($p < 0.05$).

Table 7. Groups according to socio-demographic variables.

		N	Non-Conformist	N	Conformist
Gender	Man	73	70.2%	46	53.5%
	Woman	31	29.8%	40	46.5%
Provenance	National	101	98.1%	85	98.8%
	Foreigners	2	1.9%	1	1.2%
Educational level	Primary	1	1.00%	0	-
	Secondary	16	15.4%	12	14%
	University	87	83.7%	74	86%
Occupation	Employee	88	85.4%	74	86%
	Unemployed	2	1.9%	3	3.05%
	Student	9	8.7%	9	10.05%
	Retired	4	3.9%	0	-
Age groups	Up to 30 years	33	32%	19	22.1%
	Between 31 and 45 years	47	45.6%	48	55.8%
	More than 46 years	23	22.3%	19	22.1%

3.3.3. Composition of Cluster Groups According to Sports Habits

Regarding the formation of the cluster groups according to their sports habits (see Table 8), the analyses have shown that in the group of Non-Conformists, high percentages stand out in the participants who run between three and five times per week (47.12%) and five times or more per week (31.73%), with lower percentages being those who run one or two times per week (18.27%). On the other hand, in the group of Conformity, the percentages are accumulated in those who run three to five times per week and five or more times, with 55.81% and 31.4%, respectively, leaving with 10% those who run one or two times per week. As far as club membership is concerned, there are very similar values since, in the two groups, 66% of participants belong to a sports club, while those who do not belong represent 33% in both cases. As for who they usually run with, in both the Conformist and the Non-Conformist groups, the majority run alone, with 46.51% and 49.04%, respectively, followed by those who run with club colleagues, with 29.07% for the Conformist and 33.65% for the Non-Conformist. It is also possible to observe the level that the participants consider to have, in its majority, in both groups it stands out that they consider to have a medium level as runners, representing in the group of Non-Conformists a 78.85% and a 68.6% in the Conformist ones, followed by those that consider to have a low level with a 16.35% and a 22.09% respectively. Finally, it can be observed that both Non-Conformists and Conformists run regularly in outdoor spaces, with 96% in both cases. Similarly, a comparison with the t-student test has been made, without finding differences between groups.

Table 8. Groups according to sports habits.

		N	Non-Conformist	N	Conformist
How often you run during the week	Less often	3	2.88%	2	2.33%
	1 or 2 times per week	19	18.27%	9	10.47%
	3 to 5 times per week	49	47.12%	48	55.81%
	5 times or more per week	33	31.73%	27	31.4%
Belongs to a club	No	35	33.65%	29	33.72%
	Yes	69	66.35%	57	66.28%
Who you run with regularly	Mostly alone	51	49.04%	40	46.51%
	With friends	12	11.54%	13	15.12%
	With club mates	35	33.65%	25	29.07%
	With someone from the family	4	3.85%	7	8.14%
	With colleagues at school or work	2	1.92%	1	1.16%
What level do you consider to have as a runner	Low level	17	16.35%	19	22.09%
	Medium Level	82	78.85%	59	68.6%
	High Level	5	4.81%	8	9.3%
In what type of space or facility do you usually run	Outdoor	100	96.15%	83	96.51%
	Gym or sports facility	4	3.85%	2	2.33%
	At home	0		1	1.16%

4. Discussion

In the field of sporting events, it is of great importance to know the groups that can be formed among the participants, thus being able to correctly direct the marketing strategies. In this sense, there is little literature on the segmentation of groups in terms of participants. However, there is some research with the aim of identifying the perceptions of residents of the place where the event is held, this is the case of some studies in the context of sporting events, such as that of Parra-Camacho et al. [60], in which the main objective is to find out the perception of residents of the host city of an event on a medium scale, identifying three different groups that are born after different analyses, including a hierarchical cluster. In this sense, we found other studies that analyze the perceptions of participants in sports events in order to carry out their segmentations [61,62] also using cluster analysis [63]. On the other hand, we also see this kind of segmentation analysis by cluster in sporting events in terms of the impacts they generate [64]. In that line, Parra-Camacho and Duclos-Bastías [65] carried out research on the perceptions of the socio-economic impact of a large sporting event, and performed a segmentation, with the aim of finding those groups that define the profile of the resident. In this way, it can be seen

that there is an increasing trend in the literature of these investigations, which has adopted different methodologies aimed at the segmentation of population groups to analyze the perceptions and attitudes of residents in developed countries [66]. As mentioned by Calabuig et al. [67], the segmentation of information on the assessment of perceived quality along with the different socio-demographic variables will be of great help to sports companies and their managers, obtaining important resources to be able to direct and expand information for each of the departments responsible for managing strategies for the realization of the event.

5. Conclusions

The main conclusion of the study is that after the hierarchical cluster analysis in the analyzed event, two different user profiles arose, that were called Non-Conformist and Conformist. Besides, these two groups show significant differences in perceived quality, perceived value, satisfaction, and future intentions. Therefore, these user profiles should be considered in order to be able to guide strategies more adapted to each of them, making the management of the event more effective and efficient. The group called Non-Conformists is characterized by having low average ratings and the group called Conformists high ratings. In the scale of perceived quality, the Non-Conforming participants point out that the material elements used in the event are not visually attractive, they also do not agree that the organization should not make mistakes or that it should provide personalized attention. On the opposite side, we find the opinion of the Conformists. Following this, it was identified that general satisfaction of the event does not have low valuations, but when comparing with the group of Conformists, the differences are notorious. In terms of perceived value, the Non-Conformists stand out for not agreeing with the price of the race, they do not feel that good service is being offered for what they have paid. The Conformist group, is where the highest average ratings of the whole questionnaire are found, in what refers to that participating in the event makes them feel good and also to that being part of the event makes them feel some pleasure. As far as the scale of future intentions is concerned, it can be identified that, in both groups, they are willing to return to the competition, recommend it, and talk well about it.

The composition of groups according to socio-demographic variables shows that, in both groups, the participation of men predominates mainly in the Non-Conforming group with 70% for men and 30% for women, while in the Conforming group both men and women participate almost equally. The provenance of the participants in the two groups meets the same criteria, 98% of the participants being nationals and 2% foreigners. As for the educational level, there is a majority of participants with university studies 84% Non-Conforming and 86% Conforming. Likewise, the participants in both groups stand out for having a job, the Non-Conforming representing 85% and the Conforming 86%. Finally, with regard to the ages, in both cases, they are represented by the participants between 31 and 45 years old, reflecting that, in the Non-Conformist group, there are more young people who do not reach 30 years old.

On the other hand, in the composition of groups according to sports habits, there is a predominance of runners who run from three to five times per week and five or more times per week, this for both groups, however, in the group of Non-Conformists there is 18% of participants who run one or two times per week. Regarding the membership of a club in both groups, 66% of the participants say they are in a club. It should be emphasized that the group of Conformists is less individual than the group of Non-Conformists, which could mean that, in this group, there are more runners belonging to a sports club. It can also be seen that the participants in both groups stand out for running alone, 49% for Non-Conformists and 47% for club members, with 34% and 30%, respectively, and also identifying that the participants consider that they have a medium level as Non-Conformist runners (79%), while the Conformist runners (69%), in this group, they also claim to have a high level as runners (9%) and a low level (22%), values that are higher than those of the other group.

In the analysis by means of the Student's t-test, it is concluded that there are differences between the groups in all the variables ($p < 0.001$), while, in the same analysis carried out for the socio-demographic

variables, significant differences have been found only in the gender variable. As for the analyses between the groups, according to their sports habits, no statistically significant differences have been found. These conclusions allow us to know that we cannot work with our clients by means of a general approach, but in the competitive market in which we live, where there is a great variety of offer of sports events, we must first know our target very well, and once known, analyze the user's profile since only in that way, we will be able to know the characteristics and peculiarities of each profile and only in that way we will be able to reach them fully by means of the appropriate management and marketing strategies, which will not only be useful to offer a better service to the participants but also will make their behavior towards the event be more positive.

6. Managerial Implications

The research presented in this article further expands the information to an aspect that is being increasingly studied, namely segmentation, although in this type of event, very few contributions can be found, especially in the analysis of the participants. The information obtained from this type of analysis, above all, with variables of quality, satisfaction, value, and future intentions of the participants, is a key point for sports event managers and organizations, to know how to identify the groups that, on the one hand, value the event well, and on the other hand, those that do not, will be a determining factor in directing the different marketing strategies. Likewise, it can guide the future organization of events of this type, considering the suspension of most of the marathons in the world for this year due to Covid-19, so that the profile of the runner in the future could be modified in relation to the quality of the measures and the health safeguards that could have an impact on the assessment of the general satisfaction with the event. This invites us as researchers to incorporate a new dimension in measurement scales that addresses aspects related to the forms of organization-participant relationships and between runners, in a scenario that will promote physical distance when these types of sports events are taken up again. Therefore, having information about the participant profiles and their possible variations is useful for the organizers.

7. Limitations and Future Lines of Research

Regarding the limitations, first, we find the sample size since although it has been sufficient to carry out the study and represents an important percentage of the total sample of the event (around 40%), having full access to the participants could perhaps lead to a higher response rate. Similarly, the data correspond to a specific marathon event, so obviously, it does not represent all types of events that we can find. In this sense, future research should consider the moment of data collection, so that once the event has been experienced, the participants are part of the study and there is no low response rate. On the other hand, it will also be interesting to carry out similar studies in other types of events, both running and other disciplines, in order to get to know the existing profiles and thus better understand and better manage sporting events.

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