Anestis K. Fotiadis / Chris A. Vassiliadis / Marios D. Sotiriadis

The preferences of participants in small-scale sport events: A conjoint analysis case study from Taiwan

Abstract

The primary objective of this study was an investigation of participants' preferences for a cycling orientated sport tourism event using conjoint analysis. Respondents in a survey were presented with a range of different event alternatives related to the characteristics of proposed small-scale cycling events to draw out useful conclusions about the ideal scenario of such a sporting event that would be the most attractive and desirable for those who compete. A questionnaire, in two parts, was developed and distributed to 195 bicyclers during an event in Kaohsiung, Taiwan and the data was analysed using SPSS Conjoint at the aggregate level (pooled data). Based on the preferences expressed by the athletes the three most important factors were: "preferred season to organizing the event", "parallel organised trade shows & exhibitions" and "entertainment & awards". The findings of this study provide event coordinators and sport marketers with practical insights into event planning and possibility of development of effective marketing strategies designed to reach and attract more participants to these types of activities. This investigation is unique since is one of the first to use a full design of seven parameters in the conjoint analysis model to comprehensively examine athlete's preferences.

Key words: conjoint analysis; cycling; small - scale sport event; Taiwan

Introduction

During the last two decades sport event management has received considerable attention from governments and the media although such gatherings are not a new phenomenon as they can be traced back to ancient Greece where the Olympic Games first began (Fotiadis, Vassiliadis & Yeh, 2016). One of the main reasons sport events have gained so much attention is the significant level of financial profits that can be made (Veltri, Miller & Harris, 2009; Wilson, 2006). As well, several researchers proved that it can also add social value by enhancing community pride and improving destination image through the extensive media attention that is created (Daniels, 2007; Funk & Bruun, 2007; Gibson, Willming & Holdnak, 2002, 2003; Kim & Petrick, 2005; Stylos, Vassiliadis, Bellou & Andronikidis, 2016). As Bowdin, Allen, O'Toole and McDonnell (2011) have shown there is an extensive typology of sport events all the way from international mega-sporting events to minor events run at a local community level (Getz, 2008; McKercher, 2016). During the last few years research has mainly focused on the organisation of mega and major events because of their large financial impacts (Fotiadis, Vassiliadis & Yeh, 2016) even though impact on the place and community in which they occur should also be considered (Chalip & Costa, 2005). In Taiwan several small-scale events occur every year where they

Marios D. Sotiriadis, Ph.D, Department of Entrepreneurship, Transport, Tourism and Logistics Management, University of South Africa (UNISA) Pretoria, South Africa; E-mail: sotirm@unisa.ac.za



Anestis K. Fotiadis, Ph.D, Department of Entertainment Management I-Shou University, Kaohsiung, Taiwan; E-mail: anesfottiadis@isu.edu.tw

Chris A. Vassiliadis, Ph.D, University of Macedonia, Thessaloniki, Greece; E-mail: chris@uom.edu.gr

are directly linked to the local community because they basically appeal to amateur but enthusiastic local participants. Few researchers have examined small scale events in detail (Fotiadis, Vassiliadis & Yeh, 2016; Gibson, Kaplanidou & Kang, 2012; Gibson et al., 2003; Higham, 1999) and even fewer have investigated competitive cycling competitions at this level. With this gap identified and guaranteed access to a community in Taiwan that is strongly supportive of the cycling industry such as the famous Giant cycling company, this study aims to make a contribution to the understanding of small-scale sports event management and design.

Main purpose of this study is to investigate preferences related to the various characteristics that are included in the alternative proposals for a small-scale cycling event. These preferences are also related to how amateur bicyclers think in relation to the ideal scenario for such an event cycling. Seven characteristics were identified from previous research (Fotiadis et al., 2016) (preferred season, events at night or day, entertainment and awards, registration cost, parallel organized trade shows & exhibitions, technology and scenery) and developed into a conjoint analysis model consisting of nineteen alternative proposals, all containing a different combination of features for a similar sporting event. The purpose of this investigation is to reach useful conclusions about the ideal scenario for an event that is the most attractive and desirable from the point of view of the event participants.

Literature review

In line with the aims of the study, the literature review addresses, first, how small scale events are defined and what are the main preferences for participants. The second part of the literature review deals with conjoint analysis (CA) definition and development, as CA is the main methodological tool, used in examination of alternative scenarios related to participants' preferences.

Small scale events preferences

One of the main reasons sport events are becoming more and more important are that they can boost the local economy (Gibson et al., 2012; Kaplanidou & Gibson, 2012; O'Brien, 2007; Sallent, Palau & Guia, 2011) and change the social and financial status of the destination itself (Gibson et al., 2012; O'Brien, 2007; Snelgrove & Wood, 2010). Staging a sport event immediately impacts the quality of life of people living in the host community (Taks, Chalip & Green, 2015). A rapidly growing category of sport events is small-scale sport events (McKercher, 2016). A number of researchers have attempted to clearly define what is meant by 'small scale event', but the definition by Gibson et al. (2012) that they are usually events which have limited impact, limited media interest and a smaller number of participants that is always greater than the event's audience seems the most appropriate as this is a characteristic for Taiwanese small scale sport events. Also, Higham (1999) examined small scale events and concluded that because of their wide appeal and lower cost they offer a big potential for tourism destination development. Usually these destinations motivate amateur or professional athletes to participate and, at the same time, use local services, consume local products and use local facilities (Fotiadis et al., 2016).

Athletes choose which competition to participate in and what products they will consume, because their number typically exceeds that of the audience. Fotiadis, Vassiliadis and Yeh (2016) compared cycling participants' perceptions in Greece and Taiwan and identified that for Taiwanese participants the most important factors are "preferred season to organizing the event", "registration cost", and "preferred time period", while for Greeks they are "registration cost" and "scenery". Meng and Han (2016), investigated the effect of environmental perceptions on bicycle travelers' decision-making



process in China and they found that attitude, subjective norms, perceived behavioral control, and positive anticipated emotion influenced bicycle travelers' desires, which in turn, influenced their actual behavioral intentions. Event leveraging in France due to cycling competitions was examined by Derom and VanWynsberghe (2015) and indicate that small scale events have become a strategic instrument in formulating local public policy and generating positive socioeconomic outcomes, including an increase in general bicycle tourism and active local participation.

Getz and McConnell (2014) investigated trail runners and mountain bikers and found that, both, running and mountain-biking events are always held in the summer and concluded that more research is required to fully understand the factor of seasonality. Participation in events fluctuates according to the season of the year, time of the day, and country in which they take place (Fotiadis et al., 2016; Reinboth & Duda, 2006). Barajas, Coates and Sanchez-Fernandez (2015) explored the effect of a small scale event, the Rally Ourense, in a small town in Spain and concluded that policies should focus on spectators and not spending per person by participants. Scenery is another important factor which affects small scale event participation. As the event environment (rural or urban) relates directly to the destination image, it can affect the way of thinking about the event (Vassiliadis & Fotiadis, 2014). Capriello and Rotherham (2011) examined rural events where the hosts, local hospitality and leisure industry were found to be critical for success. Almost the same results come from Panyik, Costa and Rátz (2011) who found that failure to integrate local concerns into the event organization process is a basic reason for failure. Sport events are considered important in destination management as they can enhance destination image by providing a promotional basis for demonstrating a strong and appealing perception of a place (Xing & Chalip, 2006). Other factors which are found to be significant for small scale events participants are the entertainment opportunities which refer to different social events such as parties that occur during the event (Funk & James, 2002; Shone & Parry, 2004), and the provision of prizes which demonstrate an individual's accomplishments and possibility of winning a trophy, a sponsorship or any other type of award (Kruger, 1995). An important factor, which is also a common characteristic of small scale events, includes the promotion of competition related products (for example an exhibition of different bicycle accessories or bicycles) during the event (Laverie & Arnett, 2000; Robinson & Gammon, 2004). Today it is obvious that information technology affects small scale events which is why the organizers consider the latest technological trends such as Wi-Fi or GPS transmission during the event -- for example, a GPS that indicates how fast and what distance an athlete has covered along with online transmission of the route he has followed (Fotiadis et al., 2016; Ibrahim & Ibrahim, 2010; O'Halloran, 2014; Yoshida, James & Cronin Jr, 2013).

Conjoint analysis

Small scale event organizers must know about participants' behavior and how it is affected by marketing appeals (Taks & Scheerder, 2006). One way of doing this is by the use of conjoint analysis which is a statistical technique used in market research to determine how people value different features that make up an individual product or service. The main objective of conjoint analysis is to determine what combination of a limited number of attributes is most influential in the respondent's choice behaviour or purchase decision making. A statistically controlled set of potential products or services is shown to respondents who indicate their preference order or rating for the combinations provided. This data is then analysed to determine how they chose preferences between these products by examining the implicit valuations of the individual elements from which the product or service alternative was determined. These implicit valuations (utilities or part-worths) can be used to create market models that estimate market share, sales revenue and level of profitability for existing product/services or even new hypothetical designs.



Original scientific paper Anestis K. Fotiadis / Chris A. Vassiliadis / Marios D. Sotiriadis Vol. 64/ No. 2/ 2016/ 175 - 187 It is furthermore relatively easy to compile customer profiles according to their preferred sets of product features, making of conjoint analysis one of the most often used methods for segmentation. Because it examines and simulates real-choice situations, where people evaluate a product or service through their global utility rather than considering each attribute in isolation, conjoint analysis is reliable enough (Hair, Anderson, Tatham & Black, 1998; Hair, Black, Babin, Anderson & Tatham, 2006) where its face validity is based on the belief that it is easier for people to judge a product or service by its global utility than to assess each of its component attributes in isolation. Although it has been used in many social, business and marketing applications in industry and academia there have only been few cases where it has been used to investigate issues related to sport events (Chalip & McGuirty, 2004; Dohle, Keller & Siegrist, 2010; Krieger, Moskowitz & Rabino, 2005; Snelgrove & Wood, 2010; Won, Park & Lee, 2013).

Methodology

"Bike to remember" is a cycling event conducted in the Cishan District of Kaohsiung City, Taiwan and is now in its fifth year. The event was created in memory of the 1988 typhoon which destroyed a great part of the area. The infrastructure and community has now been rebuilt and little physical evidence remains of the damage but the event organizers want a new generation to know about the disaster. Consequently, incorporated into the event is an encouragement to participants to write a brief empathic paragraph on Facebook after the activity has finished. In total 250 athletes participated in 2014 event with riders completing the 88 km journey coming from a wide range of age groups and cultural backgrounds. Information about the event can be found on http://88bike.blogspot.tw/ and participants older than 16 years of age are eligible to participate in the full 88km race.

The purpose of the current study was twofold: (i) to investigate the relative importance of the key choice factors that influence participation in a sport event, and (ii) to construct a model of the ideal sports event based on the preference determined by conjoint analysis. To assess event preferences, seven factors are used to examine different respondent choice or decision making. This controlled set was shown to respondents and by analysing how they make preferences; the implicit valuation of services was determined. Different scenarios were developed based on these characteristics, as presented earlier by Vassiliadis and Fotiadis (2014):

- "Preferred season to organize the event" (Fotiadis & Vassiliadis, 2012; Reinboth & Duda, 2006).
- "Entertainment and awards opportunities" (Funk & James, 2002; Shone & Parry, 2004).
- "Registration Cost" (Getz & Andersson, 2010; Getz & Brown, 2006).
- "Parallel organized trade shows & exhibitions" (Laverie & Arnett, 2000; Robinson & Gammon, 2004).
- "Technology" (Fotiadis & Vassiliadis, 2012; Ibrahim & Ibrahim, 2010; O'Halloran, 2014; Yoshida et al., 2013).
- "Scenery" (Capriello & Rotherham, 2011; Fotiadis & Vassiliadis, 2012; Panyik et al., 2011).
- "Organizing events day or night" (Fotiadis, Xie, Li & Huan, 2016).

The questionnaire designed for self-completion was developed from experience with similar events in Greece (Fotiadis & Vassiliadis, 2012), and distributed to 250 participants at the "Bike to remember" event. Response rate was 78% as 195 participants completed the questionnaire. The questionnaire consisted of two basic parts and it was developed in two languages (Chinese and English). The first



part presented the 19 alternative scenarios which were based on experience with other festivals and the comprehensive literature review. The second part covered socio-economic and demographic characteristics in order to allow segmentation of the visitor profiles and preference choices. Participants were approached at the time of arrival, after registration formalities.

The preference data obtained was analysed using SPSS Conjoint at the aggregate (pooled data) level. In addition, to confirm the attribute importance within the range of event 'packages' rated by the respondents a sensitivity analysis was conducted as a standard application of the conjoint analysis procedure. Sample sizes for conjoint studies generally should range from about 150 to 1,200 respondents (Orme, 2010) hence 195 participants achieved here was considered an adequate sample although somewhat limited for the purposes of examining the results by smaller demographic groups. All 250 participants were invited to participate in the survey, but only 195 actually returned the self-completion questionnaire (a nominal response rate of 78%). To achieve this sample 20 undergraduate students recruited as field workers in 10 teams of 2 persons distributed the survey instrument, explained the conjoint preference-choice approach and encouraged response. As well, there was an information stand setup to collect completed instruments and to answer any potential questions or solve any problems.

Results

Table 1 summarizes the profile of the respondents based on demographic, behavioural and socioeconomic variables. Most respondents were men (65.8%) aged between 19-39 and 40-49 years old (83.8%), unmarried (54.7%) or married with young children (26.5%). A high proportion of them were "mostly satisfied" with the event (41.8%) and most of them expressed an expectation that they "will comeback" (24.6%) and "will surely comeback" (42.2%) next or in subsequent years. In terms of spending, the participants spent most of their money outside the event area visiting restaurants and taverns (72.9%), and buying gas or food from fuel stations (62.8%). Inside the event place they tend to spend a high proportion of their money (57.5%) purchasing competition related items. Most of them have previously visited the event place (58.6%). They love to travel, mostly with others such as a companion or family (78.9%).

Table 1

Variables		n	%
Travelling with others (companion)			
Yes		154	78.9
No		41	21.1
Past visits			
First time		81	41.4
Second time		60	30.9
Third time		27	13.6
Fourth time		7	3.7
Fifth time		6	3.1
Sixth time		14	7.3
Expenditures			
Inside the place of the event		112	57.5
Outside the place in taverns, restaurants		142	72.9
Outside the place in gas, fuel stations		122	62.8
Outside in lodgings		73	37.6
Outside for transportation services		70	35.8

Sample profile of respondents to the 88bike survey (n=195)



Table 1 Continued		
Variables	n	%
Willing to comeback in the next years for the same event		
Not at all	19	9.6
No	7	3.7
Not sure	39	19.8
Yes	48	24.6
Surely yes	82	42.2
Satisfaction level		
Extremely unsatisfied	4	2.2
Unsatisfied	6	3.3
Almost unsatisfied	4	1.6
So and So	19	9.8
Almost satisfied	43	22.3
Satisfied	82	41.8
Extremely satisfied	37	19.0
Sex		
Man	128	65.8
Woman	67	34.2
Age category		
10 and under	5	2.6
11-14 years	5	2.6
15-18 years	10	5.2
19-39 years	116	59.7
40-49 years	47	24.1
50 and over	12	5.8
Marital status		
Unmarried	107	54.7
Widow(er)	-	-
Divorced	3	1.7
Married without children	17	8.8
Married with adult children	16	8.3
Married with young children	52	26.5

Conjoint analysis

The study examined the influence of the sport event factors that are important for the amateur or professional athletes in choosing to participate in small-scale sport events. More specifically, the study was designed to give a demographic and behavioural profile of participants and then, using conjoint analysis to determine the relative importance of a series of factors that are instrumental in decisions to participate in a sport event run at the local or regional level. Especially, it was examined the influence of the different levels/options of seven attributes namely "Season - Preferred season to organizing the event (all four seasons)", "Daytime - Organizing events Day or Night", "Activities- Sports with or without entertainment & awards", "Price - Event registration costs (3 pricing levels)", "Trade Events- With or without parallel trade shows & exhibitions", "Facilities – with or without Wi-Fi direct reporting of the results" and "Environment - Urban or rural area" on the athlete's preference to participate in a small scale sport events such as 88bike. With the conjoint analysis it was determined how much each of the seven factors' features (based on combinations of their part worths/utilities) actually contribute to overall preference for choosing an event (Table 2).

In this conjoint research design there were four levels (factor features) for the "Season" factor, two for the factor "Daytime" (Day and Night); two for the "Activities", "Facilities", "Environment" and "Trade events" (Yes and No); and three levels for "Price" ($5\in$, $15\in$ and $25\in$).

TOURISM

Card ID	Preferred season to organizing the even	Organizing events day or night	Sports with entertain- ment & awards	Event registration costs (NTD was convert to Euro)	Parallel trade shows & exhibi- tions	Wi-Fi direct report of the results	Prefer an urban area sport event
1	Autumn	Day	No	15 Euro cost	Yes	Yes	No
2	Autumn	Night	Yes	5 Euro cost	No	Yes	Yes
3	Summer	Night	Yes	25 Euro cost	No	Yes	No
4	Summer	Day	No	5 Euro cost	Yes	Yes	Yes
5	Winter	Day	No	5 Euro cost	No	No	No
6	Autumn	Day	Yes	5 Euro cost	No	No	No
7	Autumn	Night	No	25 Euro cost	Yes	No	Yes
8	Spring	Day	No	25 Euro cost	No	No	Yes
9	Spring	Night	No	15 Euro cost	No	Yes	No
10	Winter	Day	Yes	25 Euro cost	Yes	Yes	No
11	Winter	Night	Yes	15 Euro cost	Yes	No	Yes
12	Spring	Day	Yes	5 Euro cost	Yes	Yes	Yes
13	Summer	Day	Yes	15 Euro cost	No	No	Yes
14	Summer	Night	No	5 Euro cost	Yes	No	No
15	Spring	Night	Yes	5 Euro cost	Yes	No	No
16	Winter	Night	No	5 Euro cost	No	Yes	Yes
17	Winter	Day	No	25 Euro cost	Yes	No	No
18	Summer	Night	No	5 Euro cost	No	Yes	Yes
19	Winter	Night	Yes	25 Euro cost	No	Yes	Yes

Table 2 Plan cards for the 88bike conjoint analysis study

The first step of a Conjoint Analysis procedure was to generate the statistically representative subset of combinations of factor levels to be presented as 'sport event product profiles' to the respondents using a procedure known as orthogonal table design construction (Green & Krieger, 1991; Green & Srinivasan, 1990). For the analysis *IBM-SPSS*; Version *20.0 Statistics* software was used with its module for orthogonal design to determine the minimum number of cards (sport event product profiles) that need to be administered to allow an estimation of all utilities. By using a fractional factorial design such as this it was possible to get the information for each of the sixteen sport event product profiles displayed in Table 2. Also, in this table the three holdout cards for the conjoint study are listed (ID numbers: 17-19).

In total, nineteen cards in the questionnaire was used including the selection of preferences based on the full profile card evaluation procedure (Herman, 1988). The full-profile technique used was a rating type technique. The evaluation of each card was based on a 10-point Likert type measurement scale where 1 is "Absolutely unattractive" and 10 "Absolutely attractive". To handle the extensive choice set provided the respondents were asked to rate each of the card profiles independently and provide their preference based on the degree of attractiveness of each.

To ensure data quality, a descriptive analysis of data was done with objective of finding outliers or problematic data (answers/non-answers, systematic data bias). Because of the pre-organized procedure for the sampling process any possible bias in the data quality and the sampling procedure were minimized. Figure 1 shows the averaged part-worth's for the seven event product attribute levels described in Table 2 "Plan cards of the Taiwanese Conjoint Analysis Study" along with the average importance scores for each of the seven factors.



Figure 1 Part-worth scale values and the seven event product characteristics



Importance of the seven sport event factors

Based on the preferences of the Taiwanese athletes the most important factors preferred for a sport event are (Table 3): "preferred season to organizing the event" with an average importance score of 26%. The second preference factor is the "registration costs" with an importance score of 25%. The third preference factor is the "organizing events day or night" (score 15%). For the Taiwanese athletes "prefer an urbanized sport event" (score 9%) and to re-inforce their activities during the sport event with "Wi-Fi based direct reports" of the cycling competition results (score 8%) are of some importance. We also note that, the factors "entertainment & awards" with importance score 7% and "parallel organised trade shows & exhibitions" (score 8%) are the lowest preference factors for this sample of respondents.

Table 3

Event product attribute levels and their contribution to the total utility for the 88bike participants

Attribute		Taiwan		
		Utilities	Relative impor- tance rankings	
Preferred season to organize the event			26% (1)	
	Winter	-1.233		
	Summer	0.200		
	Spring	0.376		
	Autumn	0.657		
Entertainment and awards			7% (7)	
	Yes	-0.201		
	No	0.201		
Registration costs			25% (2)	
	5€	0.538		
	15€	0.444		
	25€	-0.982		



Table 3 Continued

Attribute		Taiwan		
		Utilities	Relative impor- tance rankings	
Simultaneously organized trade shows & exhibitions			8% (5)	
	Yes	0.109		
	No	-0.109		
Technology			8% (5)	
	Yes	0.265		
	No	-0.265		
Organizing events day or night			15% (3)	
	Day	0.453		
	Night	-0.453		
Scenery			9% (4)	
	Rural	-0.261		
	Urban	0.261		

For Taiwanese sport event participant's event product attribute levels are the following to what they might believe that is the ideal small scale sport event in Taiwan. They believe that small scale sport events in Taiwan should be organized with low registration costs (part-worth score -0.0538) and organized during the day (part-worth score 0.453), on autumn (part-worth score 0.657), since this is the most preferable season to organise a sport event. They consider positively participants' Entertainment and awards (part-worth score 0.201) and parallel trade shows and exhibitions (part-worth score 0.109). More of that they believe that technology applications (part-worth score 0.265) is important too. Furthermore, they prefer the event to be organized on an urban environment (0.261).

The correlation coefficients (Pearson's R) confirms the high level of significance of the results; r=0.950, p=0.001 and Kendall's τ value indicates a high level of correlation between the observed and estimated preferences; Tau=0.858, p=0.001, and shows quite good level of reproduction of the empirical data from the results of the Conjoint Analysis model which implies it fits well with the raw data collected and used in the analysis. (Green & Rao, 1971; Green & Srinivasan, 1978, 1990).

Conclusion

The objective of this study was the investigation of a cycling small scale sport events by means of a conjoint analysis. Different preferences related with characteristics that are included in alternative proposals for cycling events in Taiwan were developed so as to reach useful conclusions for the ideal scenario of a sporting event that is more attractive and desirable. According to the results the most important factors associated with preferring a sport event are: "preferred season to organizing the event", "registration costs" and "organizing events day or night". Other important factors for Taiwanese athletes are: "prefer an urbanized sport event", "Wi-Fi based direct reports", "entertainment & awards" and "parallel organised trade shows and exhibitions".

As suggested in the literature, registration cost was also a critical factor in many other athletic or sports events where "cost" refers to registration fee for the event but not any other participation expenses (Getz & Andersson, 2010; Getz & Brown, 2006). Although many researchers mention that "promotional events" (Laverie & Arnett, 2000; Robinson & Gammon, 2004) are very important for organizing a sport event our results indicate this factor is of only average relevance.



Another aim of this research was to answer the question about whether the athletes prefer urban or rural events and the results suggest that Taiwanese athletes "prefer an urbanized sport event". This is a very interesting result which should be examined in detail in the future since in many countries athletes usually want to compete in a rural environment, one that is close to the nature and has all its scenic advantages (Capriello & Rotherham, 2011; Fotiadis & Vassiliadis, 2012; Panyik et al., 2011). In addition, it was found that Taiwanese small scale event athletes generally like their events to be enhanced with "Wi-Fi or other technology based direct and progressive reports". This is consider a significant factor by many competitors and may be partly due to the Taiwanese obsession with personal mobile communications services and therefore the new technology that can transmit the results and progress directly as well as other critical information on any phase of the event (Fotiadis & Vassiliadis, 2012; Ibrahim, 2010; O'Halloran, 2014; Yoshida et al., 2013).

The findings of the present study provide event coordinators and sport marketers with practical insight into event planning and the development of effective marketing strategies designed to reach more participants. We believe that there are several practical recommendations which stem from the results of the study. Firstly, the sport-related attributes that were most important for the Taiwanese participants were clearly identified. In many situations where local events are planned the organizers may not have the experience or know how to develop an event because of limited knowledge or a lack of resources. This study will provide them with some current information about athlete's preferences and also a model of preference factors that can be used to improve attendance. Secondly, this study will help these organizers develop specific strategies to target groups who may wish to attend and develop a dynamic sport events environment where the event structure will provide sustainable development in the area as well as to the event they organize (Stylos & Vassiliadis, 2015). As one of the real values of conjoint is to show the ideal package and its strength in terms of preference by adding together the part worth's of the items it contains.

Main limitation of this study is that it cannot be easily generalized to other events in Taiwan or to events in other countries or cultures. As this study is based on a specific case study it is impossible to generalize to other small scale event although they might have the same characteristics as the one we examined. An opportunity that appears from this research is that we describe the preference choices observed in the cases but fail to explain the underlying mechanisms of that behavior. Further research and analysis (perhaps using a qualitative methodology) is needed covering several different sport events and those that occur in different seasons. In addition, time is a factor in understanding this behavior and more longitudinal research is suggested as participant's perception and preferences change over time. As regular participants participate in a same event several times this limitation could be avoided by tracking longitudinal data and removing the possibility that participants will introduce irrelevant or particularly useless data. Finally, the investigation would be enhanced by a program of Pan-Taiwanese research conducted all around the country and applied in different types of sport events. This contribution to tourism, sport and local economies would make a great practical contribution to understanding and profiting from small scale sports events.

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