This must be the place: A destination-loyalty model for extreme sporting events

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ABSTRACT

This paper tests a moderated sequential mediation model based on hypothesized relationships in extreme sporting events, addressing what drives participants' destination loyalty. Drawing from edgework theory and sensation-seeking theory, the model accounts for sensation-seeking, event authenticity, self-enhancement, place attachment, and revisit intention. Two opposite paths emerge: a direct, negative relationship between sensation-seeking and destination loyalty, and a positive indirect path mediated by self-enhancement and place attachment. The relationships are explored in two studies: first, Study 1 on 300 individuals attending FISE, the largest freestyle sports event in the world. Then, Study 2, meant to extend the ecological validity of Study 1, based on a panel of 300 attendees of various extreme sporting events in several disciplines. Implications for theory and practice are addressed.

Keywords: edgework theory; sensation-seeking theory; place attachment, destination loyalty: extreme sports

1. Introduction

Extreme sports disciplines have developed specific events that represent the core of the extreme sports industry and are the occasion for and context where participants gather to compete. Many of these have grown from niche events to worldwide competitions worth millions, attracting thousands of participants worldwide. For instance, the Ironman is worth US$730 million and generates revenues of approximately US$ 1 billion (Advanced Publications, 2020). Today, extreme sports are the bulk of a multi-billion-dollar phenomenon centered on events that attract thousands of visitors. In 2020 the estimated value of extreme sports tourism (also known as action sports or adventure sports tourism) exceeded US$7 trillion (ColeReport, 2020).

Participants' destination loyalty for such events is a key factor in guaranteeing future revenues and an event's sustained success (Raggiotto & Scarpi, 2020). The relevance of destination loyalty being witnessed by an abundant volume of research studies (Zhang et al., 2014). However, previous researchers have paid little attention to destination loyalty for sporting events outside of traditional sports (e.g., football; Richelieu & Pons, 2006). Thus, destination loyalty is addressed as the dependent variable in the present research. Focusing on destination loyalty is particularly important, as the success of extreme sporting events depends on their ability to attract repeat participants. Yet, destination loyalty in extreme sports events is particularly difficult because fans of extreme sports are typically high in variety seeking (Monasterio et al., 2016). As they are more easily bored by known situations, hosts, and challenges, they tend not to come back to the same event and location (, 2016).

Literature has called for extending the investigation of drivers of behavioral intentions for sporting events outside the domain of traditional sports (Zhou, Chlebosz, Tower, & Morris, 2020). However, to date, these calls remain only partially answered, as studies set in extreme sports are limited both in number (Ko, Park, & Claussen, 2008) and in scope

(Brymer & Houge-Mackenzie, 2016). Specifically, the behavioral drivers of individuals who engage in extreme activities (such as extreme sporting events) are different from those who engage in traditional activities (Lyng, 1990; Zuckerman, 1994). Thus, recent literature has suggested conceptualizing participation in extreme sports in terms of sensation-seeking, voluntarily risk-taking, and self-enhancement (Holm, Lugosi, Croes, & Torres, 2017). However, several studies on extreme sport tourism do not account for the psychological specificities of extreme sports participants (Brymer & Houge-MacKenzie, 2016). Instead, they more often address extreme sports tourism in terms of sustainability (Brymer, Downey, & Gray, 2009), environment-related motivations (Giddy & Webb, 2018), or life-style (Buckley, 2019). By not accounting for drivers related to participants' psychology, they might provide an incomplete account of behavioral consequences (Raggiotto & Scarpi, 2020).

Thus, the present research examines the relationship between the psychological drivers of participants in extreme sporting events and their behavioral intentions. It adopts the theoretical perspectives of edgework theory and sensation-seeking theory to understand what drives participants' destination loyalty. In doing so, it relates to managerially relevant contexts (e.g., extreme sporting events) and variables (e.g., place attachment and destination loyalty) the behavioral drivers identified by the psychology literature. This makes it possible to hypothesize a novel set of relationships linking sensation-seeking and self-enhancement with place attachment (at the level of event location), event authenticity, and destination loyalty.

This research includes two studies. The first is based on the FISE Games (International Extreme Sports Festival) in Montpellier, France, the largest freestyle sports event in the world, encompassing BMX, skateboarding, rollerblading, wakeboarding, and slopestyle mountain biking. FISE powers a huge sporting community and is a major tourist event, attracting over 600,000 spectators, 400,000 digital followers, and 1,800 athletes

(VoGo, 2019). In the second study, we test the findings of Study 1 with a panel of people who attended a plethora of other extreme sporting events for different disciplines, from free climbing to wingsuit-flying, from snowboarding to cliff-diving. This procedure allows to increase the ecological validity of the research, and to reflect the heterogeneity of extreme sporting disciplines and events (Keane, 2020).

2. Theoretical Background and Hypotheses

Destination loyalty concerns the tourists' commitment regarding the specific destination (Chi & Qu, 2008). Scholars have identified three definitions of destination loyalty, namely: attitudinal, behavioral, and composite loyalty (Zhang et al., 2014). Attitudinal loyalty concerns the tourists' intention to recommend the destination to others; behavioral loyalty concerns re-patronage or revisit intention; composite loyalty combines both behavioral and attitudinal loyalty. Further elaborations on destination loyalty suggest that a mixed measurement approach appears the most appropriate for assessing destination loyalty (e.g., Bigné et al., 2001; Chi & Qu, 2008; Chen & Rahmsn, 2018; Lv & McCabe, 2020). In particular, destination loyalty is usually conceptualized and measured as encompassing revisit intention and destination suggestion (Zhang et al., 2014; Meleddu et al., 2015; Lv & McCabe, 2020). In this research, destination loyalty is the dependent variable and is operationalized according to the combined perspective (i.e., revisit intention and destination suggestion).

Destination loyalty is amongst the key constructs in tourism management in general, and holds no less relevance in sport tourism in specific (Meleddu et al., 2015; Almeida-Santana & Moreno-Gil, 2018). Its relevance has stimulated a vivid academic debate, investigating possible drivers of tourist loyalty to a destination. Overall, scholars identify those drivers as tourist-related (e.g., motivation, sociodemographic characteristics, previous

experiences, e.g., Almeida-Santana & Moreno-Gil, 2018), destination-related (e.g., service quality, authenticity; Lee, Jeon, & Kim, 2011; Akhoondnejad, 2016; Scarpi et al., 2019), or travel outcome related (e.g., perceived quality, perceived value, satisfaction; e.g., Song et al., 2013). As the next paragraphs detail, based on literature in psychology, we advance a direct path affecting destination loyalty negatively, and an indirect path affecting destination loyalty positively.

2.1. Sensation seeking and destination loyalty: the direct relationship

Sensation seeking is a trait defined by the search for experiences and feelings that are varied, novel, and intense, and by the readiness to even take risks for the sake of such experiences (Zuckerman, 1994; 2007). Psychology literature has shown that consumers who seek sensations have "a need for a varied, novel, and exciting environment" (Kass & Vodanovich, 1990, p.7).

Sensation seeking has been addressed often by tourism researchers, and considered one of the main drivers for travel and exploration (for a review, see Pizam et al., 2004 and Park & Stangl, 2020), affecting travel behavior and destination choice (Lepp & Gibson, 2008) because it is related to variety seeking and exploratory tendencies (Jang & Feng, 2007; Park & Stangl, 2020; Pizam, Reichel, & Uriely, 2001; Sharma et al., 2010).

Overall, the literature agrees on a negative direct relationship between sensation seeking and loyalty. High sensation seekers "may gain more from brand switching behavior because they derive more value (…) from the excitement of experiencing the new and unknown" (Lee, 2006, p.70). In this vein, Niininen, Szivas, and Riley (2004; p.442) advanced that sensation-seeking tourists "may want to repeat the same type of holiday but do not wish to return back to the same destination". Indeed, tourism scholars

found that sensation seeking is positively correlated with the tendency to avoid repetition of a destination, as repetitive situations lead them to boredom (Galloway and Lopez 1999; Gilchrist, Povey, Dickinson, and Povey 1995). In this vein, for instance, Lee (2006) found that satisfied tourists low in sensation seeking were more loyal than equally satisfied tourists high in sensation seeking. Similarly, Leone & D'arienzo (2000) suggested that destination loyalty would be difficult to attain among sensation-seekers, and Assaker, Vinzi, and O'Connor (2011) reached similar conclusions examining the effect of sensation seeking on tourists' return patter. Hence, extant literature supports that sensation-seeking hampers loyalty.

Furthermore, Zuckerman (2007), the father of sensation seeking theory, found high levels of sensation seeking among enthusiasts of extreme sports (also known as action sports, adventure sports, freestyle sports; Brymer & Houge-McKenzie, 2017), that we address here as tourists. High scores on sensation seeking for extreme sports enthusiasts were also documented in the tourism literature (e.g., Pizam, Reichel & Uriley, 2001; Lepp & Gibson, 2008).

Based on these considerations, we expect a negative direct relationship between sensation seeking and destination loyalty:

***Hypothesis 1*:** Sensation-seeking negatively impacts loyalty to the event host destination.

2.2. Sensation seeking and destination loyalty: the indirect relationship

Several scholars have shown that sensation seeking is useful in that it can trigger the desire to travel, and therefore is at the very foundation of tourism and exloration (e.g., Galloway & Lopez, 1999; Lepp & Gibson, 2008; Park & Stangl, 2020). However, as shown in the previous paragraph, one could say that sensation seeking is also harmful to tourism, as it lowers loyalty.

The reason for this apparent contradiction about the nature of sensation seeking might be explained in light of the fact that –to the best of the authors' knowledge– previous studies have focused on the direct relationship with destination loyalty. Instead, we argue that the relationship between sensation seeking and destination loyalty may be more complex if it is treated as an indirect relationship.

Specifically, literature in psychology has documented that individuals high in sensation seeking might behave according to different psychological drivers than those with low sensation seeking. Those drivers are explained more in detail by edgwork theory (Lyng, 1990). Edgework theory explains why sensation seekers engage in extreme or fearful behaviors in the first person (e.g., as athletes doing extreme sports, Brymer & Schweitzer, 2017), or in the third person, as spectators (Raggiotto, Scarpi & Moretti, 2019). Those individuals are fully aware of the potential negative emotions and consequences that such sensational activities entail (Milovanovic, 2005; Raggiotto, Scarpi, & Mason, 2019). They use those activities to quench their thirst for sensations by challenging their physical and psychological limits. They step outside of the comfort zone by seeking rather than avoiding danger and by new experiences. For instance, some individuals seek strong emotions such as fear, through watching horror movies (Hoffner & Levine, 2007), or violence, through playing videogames (Konijn, Nije Bijvank, & Bushman, 2007).

According to edgework theory, watching or taking part in action-oriented, sensational events satisfices individuals' sensation-seeking tendency (Lyng, 1990; Zuckerman, 1994) and elicits sensations that can be mentally structured into cathartic steps toward a feeling of self-enhancement (Brymer & Schweitzer, 2017; Lyng, 1990). Ultimately, people engage in highly sensational activities (such as, for instance, extreme sports; Keane, 2020) to push forward their physical and psychological limits

(Lyng, 2014), to improve themselves, and get closer to an ideal self (Lyng, 2014; Raggiotto & Scarpi, 2020). Sensation seeking, this is to say, is a purposeful experimentation and exploration functional to self-growth (Martens, 2007; Shoham, Rose, & Kahle, 2000; Zuckerman, 2006).

Self-enhancement is a positive feeling that is achieved when an experience makes participants feel better about themselves (Shoham et al., 2000; Verchère, 2017): dopamine is released in the brain, as witnessed, for instance, in individuals doing extreme sports (Jozkow, 2017; Self et al., 2007). Experiences that lead to rewards (such as, for instance, dopamine-release from doing extreme sports; Heirene et al., 2016) increase the probability of response repetition and the brain will develop positive associations to those experiences (Wise & Rompre, 1989). The reward-repetition mechanism has been found in and applied to tourism as well, for instance, to explain destination loyalty in tourism (Goodbey & Graefe, 1991) and pleasure travels (Fennel, 2009), though not in relation to sensation seeking.

Accordingly, as the next paragraphs will detail, we advance the possibility of a positive, indirect path from sensation seeking to destination loyalty, through a reward-repetition mechanism triggered by self-enhancement. This is a new and different conceptualization in the domain of tourism, based on the tenets of edgework theory and sensation seeking theory.

Thus, we posit that, on the one hand, sensation seeking can lead to getting accustomed to (and bored by) already known experiences and places, negatively affecting destination loyalty. Yet, on the other hand, if sensation seeking leads to self-enhancement, then it can also activate a parallel, positive indirect path based on reward-repetition through self-enhancement. This indirect path should make individuals willing to try a tourism experience again, thus positively contributing to destination loyalty.

In summary, we posit that two mechanisms might be at work: a negative direct effect of sensation-seeking on destination loyalty (H1), and a positive indirect effect through self-enhancement (as will be discussed in H2 to H5).

2.3. From sensation-seeking to self-enhancement

As posed by edgework theory, the search for risks and fears is motivated by an inner striving for self-enhancement (Gyimóthy & Mykletun, 2004), a need to approach an ideal self through facing threats, challenges, and fears (Lyng, 2014). To that end, extreme sporting event experiences assume a relevant, symbolic meaning in terms of occasions for self-enhancement. During events, participants are highly motivated to push forward their personal limits (Shoham, Rose, & Kahle, 2000; Verchère, 2017), and these events assume a cathartic significance, evoking mental associations with concepts like freedom or self-improvement (Holm et al., 2017; Lyng, 2014).

Research has reported that individuals who actively seek strong sensations are often motivated by self-enhancing purposes (Gyimóthy & Mykletun, 2004). This highlights the linkage between sensation-seeking and the need for self-enhancement. For instance, Cestac et al. (2011) and Johnston (1995) showed that individuals engaging in sensation-seeking behaviors such as driving fast or watching fearful, gory programs do so because it enhances their sense of self. They want to feel in "control all situations, including the most exceptional ones" (Cestac et al., 2011, p. 424) and "to feel brave" (Johnston, 1995, p. 536). Such experiences leave them "feeling wild, powerful, excited, and good" (Johnston, 1995, p. 538).

In summary, edgework individuals channel sensation-seeking to reduce "the discrepancy between the self one currently is and the self one would ideally like [to be]" (Sedikides & Gregg, 2008, p. 103). Thus, there appears to be a psychological process driven

by sensation-seeking and aimed at reaching and pushing forward one's limits (Lyng, 2014). We hence posit the following:

Hypothesis 2: *Sensation-seeking has a positive impact on self-enhancement.*

2.4. The role of event authenticity

Authenticity is a concept "that encapsulates what is genuine, real, and/or true" (Castéran & Roederer, 2013; p.153). It can be operationalized as an attribute of an object or, instead, as the result of tourists' perceptions and interpretation of an object. We operationalize authenticity according to this last perspective, which envisions authenticity as "socially constructed and depends on tourists' viewpoints and perspectives (…) [and] reliant on the situation and context" (Akhoondnejad, 2016; p.469).

Authenticity, as the result of a perceptual process of interpretation, refers to the extent to which tourists perceive experiences as true (Castéran & Roederer, 2013). In sports tourism, authenticity reflects the perception that an athlete, team, or sporting event retains its true character and spirit, its true self, and is faithful to its internal ideas (Hinch & Higham, 2005; Tsiotsou, 2012). Accordingly, we operationalize the perceptions of authenticity as a visitor experience-related phenomenon (Park, Choi, and Lee, 2019), in terms of faithfulness to internal rather than external ideas, retention of one's owns character despite external forces (Tsiotsou, 2012).

Authenticity is an important element influencing tourist behavior (Poria, Reichel, & Cohen, 2013; Meng & Choi, 2016; Park, Choi, & Lee, 2019), particularly extreme sport tourist behavior (Hinch & Higham, 2005). When extreme sport tourists perceive an event as authentic, they are more willing to participate and more satisfied (Brymer & Schweitzer, 2017). Yet, the rapid growth in popularity of extreme sports events might make them lose

their original spirit and succumb to external forces (e.g., pressure from the sponsors), threatening their authenticity (Tsiotsou, 2012).

Indeed, authenticity is one of the most crucial issues for extreme sports events as they are inherently about delivering individuals an "experience of authenticity" (Lyng, 2014, p. 456). Thanks to feelings of authenticity in extreme sporting events, participants can imbue extreme sporting events with the psychological meanings of death-defying experience and self-improvement (Lyng, 1990, 2014).

Based on these considerations, we posit that the authenticity of an extreme sporting event could help participants develop feelings of self-enhancement. In other words, authenticity could act as a positive moderator in the relationship between sensation-seeking and self-enhancement hypothesized in H1. Hence:

Hypothesis 3: *Event authenticity positively moderates the relationship between sensation-seeking and self-enhancement.*

2.5. From self-enhancement to place attachment

Furthermore, and more importantly, according to edgework theory, the ultimate experience of extreme sports is the reaching of a feeling of self-enhancement (Shoham et al., 2000). Extreme sporting events hold unique potential to channel and drive attitudinal and behavioral outcomes like satisfaction, behavioral intentions, and loyalty (Raggiotto et al., 2019a). In participants' quest for self-enhancement, extreme sporting events represent unique occasions for satisfying the search for sensations and reducing the discrepancy between the perceived and the desired self (Sedikides & Gregg, 2008). Based on edgework theory and sensation-seeking theory, successful extreme sporting experiences are those that make participants feel better about themselves, increase self-esteem, and provide feelings of self-enhancement overall (Shoham, Rose, & Kahle, 2000; Verchère, 2017).

We posit that feelings of self-enhancement provided by competing in an event lead to the development of positive attitudes and meanings also in relation to the place where the event takes place, allowing the self to reflect on the place. Indeed, the literature on traditional sports has documented that hosting sports events can result in the development of place attachment (Brown, Smith, & Assaker, 2016; Kirkup & Surtheland, 2017). This should hold no less for extreme sports, especially as they usually take place in open spaces and often involve the whole location (e.g., the Ironman competitions unfold in several miles of territory).

Furthermore, the literature on environmental psychology has envisioned place attachment as a psychological connection (Lewicka, 2011). Tourism literature on non-extreme events has shown that they can have a positive impact on destination perceptions and attachment (Chalip & Xing, 2006). And, if the experience was positive (Kaplanidou et al., 2012), they can lead to the transfer of positive imagery from the event to the destination hosting it (Chalip & Xing, 2006). By analogy, we posit for extreme sporting events a transfer of positive imagery to the event location when the event is perceived as having helped one reach and push further personal limits. In other words, we posit that extreme sports events, due to their cathartic psychological significance, are likely to shape a psychological connection between the participants and the location. We further posit that the strength of the connection is proportional to the extent to which the event is perceived as having positively contributed to one's self-enhancement. Accordingly:

Hypothesis 4: *Self-enhancement positively impacts place attachment.*

2.6. From place attachment to destination loyalty

Previous studies have shown that strong bonds between event participants and the event location produce stronger reactions to the event location, reinforcing positive outcomes such as destination loyalty (Brown et al., 2016). In this vein, there is empirical support for the

fact that re-patronage for traditional sporting events is influenced by participants' experience in the hosting location (Kaplanidou et al., 2012).

Developing destination loyalty is a key strategic goal for tourism practitioners. Acquiring loyal visitors is a strategic goal, as they cost less to attract, stay longer and spend more money (Zhang, Fu, Cai, & Lu, 2014), produce positive word of mouth, and are more involved with the destination (Lehto, O'Leary, & Morrison, 2004). Thus, it is no surprise that place attachment holds a central relevance in tourism research and practice (see Brown et al., 2016, for a review). Scholars agree in defining place attachment as the cognitive/emotional connection one feels with a place resulting from the combination of affect, emotion, knowledge, beliefs, and behaviors concerning that place (Low & Altman, 1992). Yet, the literature remains ambiguous about the exact influences that place attachment exerts on tourists. For instance, some scholars suggest place attachment as a direct predictor of destination loyalty (Ramkissoon, Smith, & Weiler, 2013). Instead, others consider it a consequence rather than an antecedent (Lee, Kyle, & Scott, 2012). This ambiguity has been addressed in recent studies (e.g., Scarpi, Mason, & Raggiotto, 2019) that suggested examining place attachment as a mediator in relationships involving destination loyalty, in line with Lee et al. (2012) and Brown et al. (2016). As noticed by Zhao, Lynch, and Chen (2010), older studies have often not addressed place attachment as a mediator because only full mediation was the gold standard.

Further, at least for events, there is empirical evidence of the impact of place attachment on future loyalty (Alexandris, Kouthouris, & Meligdis, 2006; Brown et al., 2016).

Accordingly, the present research posits place attachment as a predictor of destination loyalty. Furthermore, place attachment mediates the relationship between self-enhancement and destination loyalty. In doing so, we acknowledge the findings by Alexandris et al. (2006)

and Brown et al. (2016) and incorporates the suggestions by Zhao et al. (2010) and Scarpi et al. (2019). Hence:

Hypothesis 5: *Place attachment has a direct impact on loyalty to the host destination.*

2.7. The conceptual model

Overall, our hypotheses link the psychological literature on edgework theory and sensation-seeking theory with the tourism literature. We build on these two related theories to provide a psychology-based explanation for individuals' loyalty to a destination hosting extreme sporting events, using insights from these theories to better understand extreme consumers' behavioral intentions.

Essentially, we hypothesize that participants of extreme sporting events have a high sensation-seeking tendency. They are driven by a desire for self-enhancement, which happens particularly when they perceive that the event they are taking part in is authentic. In turn, the positive feeling of self-enhancement leads to greater attachment to the place that made such achievement possible, which ultimately leads to destination loyalty. In summary, we develop a moderated sequential mediation model, where self-enhancement and place attachment mediate the relationship between sensation-seeking attitude and destination loyalty. Furthermore, we posit event authenticity as a moderator of the relationship between sensation-seeking and self-enhancement (Fig.1).

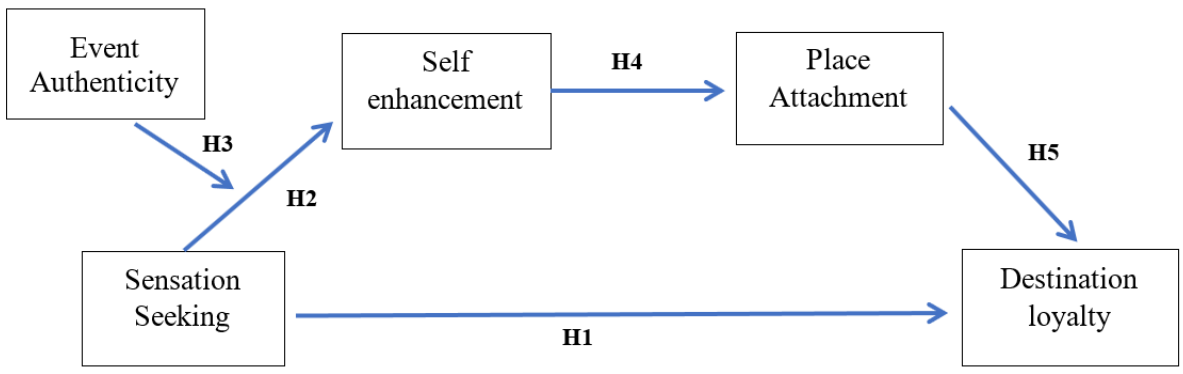

Fig. 1. The conceptual model.

As Fig. 1 shows, the upper part of the model posits a sequential chain of effects whose overall impact on destination loyalty is positive. In contrast, the lower part of the figure posits a counter-balancing negative direct effect of sensation-seeking on destination loyalty. As a consequence, practitioners would need to help participants in extreme sporting events develop feelings of self-enhancement by providing authentic events. Further, managers should work on building place attachment to transform participants' sensation-seeking from a threat to loyalty into an opportunity.

3. Study 1

3.1. Setting

France is one of the most important countries in the industry of traditional sports (Nielsen Sports, 2016) and a pioneer of extreme sports since the earliest days. For instance, its triathlon federation, founded in 1989, is one of the oldest, and wingsuit flying was invented in France by the tailor Francois Reichelt in 1912, pre-dating the boom of that extreme discipline by nearly a century. Since the dawn of extreme sports, France has developed into one of the most relevant countries for these disciplines, offering extreme athletes more than 3,000 events per year, 800 clubs, and 50,000 fellow participants (FFTRI, 2018). Thus, it is no surprise that France is often addressed in the study of extreme sports (e.g., Le Breton, 2000; Brymer & Oades, 2009; Raggiotto et al., 2019a). Indeed, France has powered a huge community for extreme sports, featuring numerous events. For instance, to ice-climbers, free climbers, and paragliders (Brymer & Houge-Mackenzie, 2016), France's Mont Blanc – the highest mountain on the European continent – offers unique opportunities. And to extreme endurance athletes, France offers one of the largest Ironman events in Europe (EU-Ironman, 2018).

Thus, it is understandable why FISE (International Extreme Sports Festival), the largest freestyle extreme sports event in the world, was born in France, in 1997, from an idea of Hervé André-Benoit, a sports enthusiast and student at the Montpellier Business School. One of the most established, continuously held extreme sports events, FISE encompasses BMX, skateboarding, roller-blading, and extreme biking. About 1,800 athletes exhibit during FISE, which attracts 600,000 visitors and 400,000 digital followers (VoGo, 2019) to the natural steps of the Lez's river banks in Montpellier, a city of 250,000 inhabitants in southern France and the capital of the Hérault department in the Occitanie region.

Despite its eleven centuries-long history, Montpellier is one of the youngest cities in France: roughly one-third of its population are students of its three universities. There is no doubt that FISE is a massive extreme sporting event, being one of the largest events worldwide for both passive (spectators) and active (athletes) participation. It greatly benefits the local economy, both directly and indirectly, helping the city's development through networks of countless stakeholders, and reinforcing tourism as a strategic industry for the city (Midilibre, 2014).

In 2003 the first international partnerships of FISE were developed, with Dubai, Tunisia, Kuwait, and Costa Rica. In 2007, FISE grew into an international tour under the name FISE Xperience. Finally, in 2014 the FISE concept was internationalized in the form of the FISE World Series (Cochet, 2018). It is a world tour of freestyle sports bringing together professional and amateur athletes in BMX, skateboarding, mountain biking, rollerblading, and wakeboarding, with the support of IMG media for television distribution. Since 2016 FISE has hosted the BMX Freestyle World Cup.

3.2. Sample and measurements

A total sample of 300 amateurs attending the event as tourists was collected through a paper-and-pencil questionnaire in 2018. Respondents' overall mean age was 26.9 years (median 25 years), and 69% were males. These demographics reflect the population of the sampled sports according to reports from media coverage (The New York Times, 2015) and to the extant literature (Raggiotto & Scarpi, 2020).

The questionnaire was pretested with a sample of 40 respondents (not included in the analysis) to ensure clarity of the questions, and following Podsakoff, MacKenzie, Lee, and Podsakoff (2003) to avoid method biases. To reduce social desirability bias, respondents were ensured that there were no right or wrong answers, that their answers would not have been shared with anyone, and personal details would not have been disclosed (Podsakoff et al., 2003). These reassurances were read to respondents before starting the questionnaire.

The questionnaire asked respondents for information corresponding to the dependent and independent variables. It adapted extant scales for sensation-seeking (Shoham, Rose, & Kahle, 2000; 5 items), self-enhancement (Shoham, Rose, & Kahle, 2000, 4 items), event authenticity (Tsiotsou, 2012; 3 items), place attachment (Kaplanidou et al., 2012; 5 items), and destination loyalty (Chen & Phou, 2013; 2 items). Survey items were measured using 7-point Likert scales. Further, respondents were asked how many other times (if any) they had participated in an event in previous years. Then, respondents reported their demographics and were thanked and debriefed.

To test for the absence of common method bias, following Kock (2015), we run the collinearity diagnostic in SPSS. All VIF values were below the threshold of 3, ranging between 1.01 and 2.36. Accordingly, the model can be considered free of common method bias (Kock, 2015). Secondly, following Martinez-Martinez (2019), we run Harman's one-factor test. The results show a worse fit for the one-factor model. Specifically, it yielded a

Satorra-Bentler $\chi^2(152) = 3711.07$; $\chi^2/d.f. = 24.41$ (compared with the Satorra-Bentler $\chi^2(142) = 375.30$; $\chi/d.f = 2.64$ for the measurement model). The significantly worse fit for the one-factor model than for the measurement model ensures against common method bias.

Social desirability –as measured by the shortened scale by Fischer and Fick (1993)– was entered as a covariate in the model. Its coefficients were not significant (p-values ranging between .54 and .82), which ensures against social desirability bias (Holbrook and Krosnick (2010).

3.3. Procedure

A moderated sequential mediation analysis was run to test the theoretical model illustrated in Fig. 1 using the PROCESS macro for SPSS (Hayes, 2018; model 6, customized w-matrix). Based on the confirmatory factor analysis (CFA) results, the mean composite scores on the items for each construct were used in the multiple moderated mediation model (Hayes, 2018). Event authenticity was entered as a moderator of the relationship between sensation-seeking and self-enhancement. Self-enhancement and place attachment were entered as sequential mediators of the relationship between sensation-seeking and destination loyalty. The analysis combined mediation and moderation to assess (1) the effects of sensation-seeking on destination loyalty (both directly and indirectly, through self-enhancement and place attachment), (2) the effect of sensation-seeking on self-enhancement (as moderated by event authenticity), (3) the effect of self-enhancement on place attachment, and (4) the effect of place attachment on destination loyalty. Effects significance was evaluated by means of 10,000 bootstrap samples to create bias-corrected confidence intervals (CIs; 95%) with heteroscedasticity-consistent SEs (Hayes, 2018).

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3.4. Results

Results from a CFA with AMOS 18 ($\chi^2/df < 3$; RMSEA = 06; CFI = .96) and Cronbach's alpha ranging between .87 and .95 provide support for the validity of the measures. Questionnaire items, means, and standard deviations are reported in Appendix Table A.1

Results of the moderated sequential mediation show that the index of multiple moderated mediation was significant (Effect = .01, 95% CI [.00, .03]), as the 95% CI interval does not include zero (Hayes, 2018). This evidence supports that the conceptual model is robust. Specifically, sensation-seeking led to higher feelings of self-enhancement (Effect = .33, t = 2.02, p = .04), providing support for Hypothesis 2. Furthermore, as advanced in Hypothesis 3, event authenticity significantly and positively moderated the effect of sensation-seeking on self-enhancement (Effect = .06, t = 1.95, p = .05). This finding suggests that when perceived event authenticity is higher, the effect of sensation-seeking is strengthened. As in Hypothesis 3, the differences in self-enhancement between individuals with higher and lower sensation-seeking are increased (effects at the values of the moderator: $Authenticity_{low}$ = .57, 95 t = 11.94, $p < .001$; $Authenticity_{high}$ = .69, t = 14.36, $p < .001$). In line with Hypothesis 4, feelings of self-enhancement were positively related to consumers' place attachment (Effect = .64, t = 11.51, $p < .001$). In turn, as advanced in Hypothesis 5, place attachment positively affected destination-loyalty intentions (Effect = .34, t = 5.31, $p < .001$). These indirect effects through self-enhancement and place attachment are all positive in sign. Instead, as advanced in Hypothesis 1, a significant and negative direct effect emerges for sensation-seeking on destination loyalty (Effect = −.18, t = −2.74, p = .01).

Overall, this evidence supports self-enhancement and place attachment as partial mediators of the relationship between sensation-seeking and destination loyalty. Overall, the highest destination loyalty was observed for individuals who sought sensations in events

perceived as highly authentic, reaching self-enhancement, and developing place attachment. Results suggest that individuals with higher sensation-seeking tendency developed a stronger feeling of self-enhancement. This is especially true when they felt the event to be authentic, and thus also had a higher attachment to the place that led to higher destination loyalty.

Instead, low destination loyalty emerged for individuals high in sensation-seeking who did not develop feelings of self-enhancement in the event and attachment to the place.

The results of the PROCESS macro are illustrated in Fig. 2 and summarized in Appendix Tables A.1 and A.2.

3.5. Results from further analyses: types of visitors

Similar to Fu, Yi, Okumus, & Jin (2019), attendees were split between repeat and first-time visitors, based on whether they had or had not previously participated in at least one edition of the event. Also, we compared the answers of newly loyal visitors (whose loyalty to the event was gained from participating in the previous year for the first time) and old-loyal visitors (who were loyal to the event for more than one year).

Results of a MANOVA with repeat visiting as independent variable show significant differences at the multivariate level (Wilks $\lambda = .92$, $F = 5.07$, $df = 5; 294$, $p < .001$, $\eta^2 = .08$). Univariate follow-up comparisons reveal a significant effect on place attachment only, with first-time visitors displaying significantly less place attachment than repeat visitors ($M_{first} = 3.72$ vs. $M_{repeat} = 4.41$, $F = 19.93$, $df = 1; 298$, $p < .001$, $\eta^2 = .06$), in line with recent findings from tourism studies in domains other than extreme sports (Fu et al., 2019).

Previous literature suggested that positive and negative drivers of place attachment might have an impact slowly decreasing in time with aging (e.g., Shao & Liu, 2017). However, we can ascertain that at least on a few years' basis the positive contribution of self-enhancement to place attachment remains stable. Specifically, a moderation test further

reveals that the strength of the relationship between self-enhancement and place attachment is left unaffected by being a first-time or a repeat visitor (Moderation by repeat visiting = .02, se = .11, t = .18, p = .86).

No difference emerges from the univariate comparisons for sensation-seeking between first-time and repeat visitors (M_{first} = 5.46 vs. M_{repeat} = 5.64, F = 1.37, df = 1; 298, p = .24, η^2 = .00). T. Such his is a valuable result in that it tells us that sensation-seeking does not wear out from multiple participation Such evidence is in line with the postulates of sensation-seeking theory (Zuckerman, 1994) that envision a decay of sensation-seeking only over a decades-long span. Furthermore, first-time visitors have no personal experience of the challenges they will face in the event, contrary to repeat visitors. Thus, one might argue that first-time visitors could be more likely to feel frustrated and unprepared. However, one could also argue the opposite, as repeat visitors could have already exhausted the potential for self-enhancement of the event, having already participated in it.

Our data show that no difference emerges for self-enhancement between first-time and repeat visitors (M_{first} = 4.60 vs. M_{repeat} = 4.76, F = 1.31, df = 1; 298, p = .25, η^2 = .00). This result is relevant for two reasons: first, it translates into a tourism-management domain previous suggestions from psychology about the lack of habituation of emotional effects (Herbert, Junghofer, & Kissler, 2008). Second, it shows how reaching feelings of self-enhancement is not made harder or easier by previous participation, but more likely depends on an inner spark that individuals carry in their souls, an ancestral awareness of mortality (Le Breton, 2000).

However, destination loyalty was (slightly) higher among repeat visitors, which highlights a virtuous circle whereby maintaining loyal customers is relatively easier. This might appear unsurprising in light of numerous studies showing the “superiority” of loyal customers (M_{first} = 4.44 vs. M_{repeat} = 4.78, F = 4.37, df = 1; 298, p = .04, η^2 = .01).

Instead, it is surprising if one considers the particular context of analysis. In fact, in extreme sports, seeking novelties, new sensations, and new challenges is a powerful driver embedded in the psychology of individuals (Marengo, Monaci, & Miceli, 2017). Thus, it is a relevant finding that repeat visitors still display higher levels of intention to return to an event compared with first-time visitors. More good news for the organizers of extreme sporting events is that repeated visits did not significantly diminish feelings of authenticity (M_{first} = 5.30 vs. M_{repeat} = 5.13, F = 1.57, df = 1; 298, p = .21, η^2 = .00).

Finally, we compared participants of newer and older loyalty. Specifically, we compared those visiting for the first time in 2017 and again in 2018 (newly acquired loyalty) with those who in 2018 were visiting for the second time or more (old loyalty). Results from a MANOVA show no significant difference between these two groups (Wilks λ = .98, F = 1.37, df = 5; 294, p = .23, η^2 = .02), which suggests that the divide is between first-time and repeat visitors, rather than between older and newer repeat visitors.

4. Study 2

To further validate the results from Study 1 and to generate external validity, we conducted Study 2 on events unrelated to FISE. A panel of 300 participants was purchased from a market research company in summer 2019 to answer a Qualtrics-implemented questionnaire, under the condition that participants had attended an extreme sporting event during the last 12 months. Respondents' mean age was 27.1 years (median 25 years), and 62% were males. As for Study 1, these demographics align with the figures for extreme sporting events from practitioners (Action Sports, 2009; Crouse, 2015) and academic sources (Raggiotto & Scarpi, 2020). The sampled events range from free climbing to wingsuit-flying, from snowboarding to cliff-diving, overall fully reflecting the varied world of extreme sports as defined and exemplified by Keane (2020).

534 The questionnaire was the same as in Study 1. Further, it asked respondents what
535 event they had participated in and whether they did so as spectators or as athletes. The same
536 procedure as in Study 1 was implemented to test the conceptual model in Fig. 1.
537
538 ***4.1. Results from the moderated sequential mediation***
539 As for Study 1, results from a CFA with AMOS 18 ($\chi^2/df < 3$; RMSEA = .07; CFI = .95)
540 and Cronbach's alpha ranging between .73 and .90 provide support for the validity of the
541 measures.
542 The results from Study 2 fully support those of Study 1 and hypotheses 1 through 5.
543 They provide ecological validity of the findings in light of the heterogeneity of the sampled
544 events. In detail, the index of multiple moderated mediation was significant (Effect = .09,
545 95% CI [.01, .20]), as the 95% CI interval does not include zero (Hayes, 2018). As in Study
546 1, sensation-seeking led to self-enhancement (Effect = .37, t = 3.53, p < .001), with a
547 positive moderation by event authenticity (Effect = .39, t = 2.20, p = .03). Specifically,
548 higher levels of event authenticity enhanced the relationship between sensation-seeking and
549 self-enhancement (effects at the values of the moderator: $Authenticity_{low}$ = .37, 95, t = 3.53,
550 p < .001; $Authenticity_{high}$ = .74, t = 5.33, p < .001). In turn, self-enhancement increased
551 place attachment (Effect = .54, t = 11.34, p < .001), which positively reflected on
552 destination loyalty (Effect = .44, t = 8.39, p < .001). As in Study 1, the direct effect of
553 sensation-seeking on destination loyalty was negative (Effect = −.32, t = −4.09, p <
554 .001).
555 The results of the PROCESS macro for Study 2 are illustrated in Fig. 2 and
556 summarized in Appendix Tables A.1 and A.2.

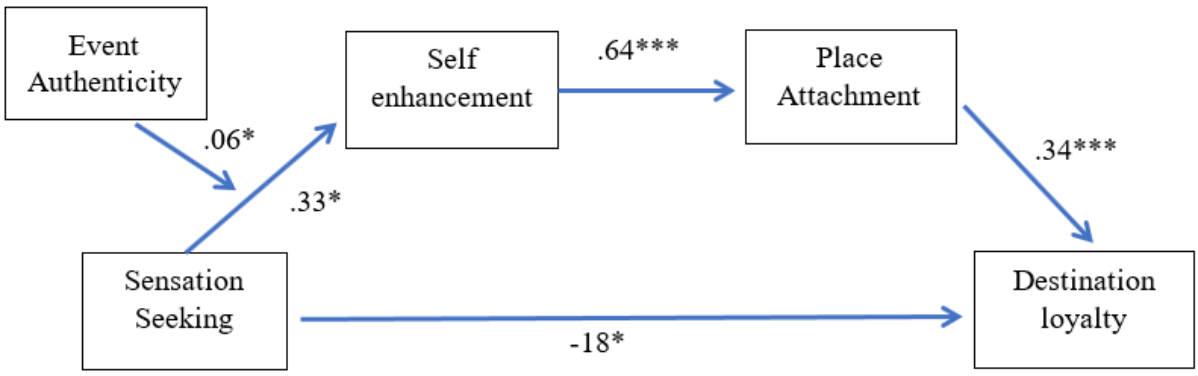

Fig. 2. The model with estimates.

4.2. Results from further analyses: types of visitors

As in Study 1, attendees in Study 2 were split between first-time and repeat visitors. We compared newly loyal visitors (whose loyalty to the event was gained from participating in the previous year for the first time) and old-loyal visitors (who were loyal to the event for more than one year). Further, the data in Study 2 allow us to run comparisons between active (athletes) and passive (spectators) participants.

Results of a MANOVA with repeat visiting as independent variable confirm significant differences at the multivariate level (Wilks $\lambda = .95$, $F = 2.87$, $df = 5; 286$, $p = .01$, $\eta^2 = .05$), as found in Study 1. Univariate follow-up comparisons show that first-time visitors display less place attachment than repeat visitors ($M_{first} = 4.11$ vs. $M_{repeat} = 4.68$, $F = 8.59$, $df = 1; 293$, $p = .004$, $\eta^2 = .03$). No significant differences emerged in sensation-seeking ($M_{first} = 5.34$ vs. $M_{repeat} = 5.54$, $F = 1.31$, $df = 1; 293$, $p = .25$, $\eta^2 = .00$) or self-enhancement ($M_{first} = 4.36$ vs. $M_{repeat} = 4.57$, $F = .48$, $df = 1; 293$, $p = .49$, $\eta^2 = .00$). However, the difference in loyalty between first-time and repeat visitors that emerged from Study 1 was only marginal in Study 2 ($M_{first} = 5.29$ vs. $M_{repeat} = 5.57$, $F = 2.71$, $df = 1; 293$, $p = .10$, $\eta^2 = .01$).

Comparing participants of newer and older loyalty, as in Study 1, no effects emerged for the dependent variables (Wilks $\lambda = .95$, $F = 1.02$, $df = 5; 90$, $p = .44$, $\eta^2 = .05$). Finally, in Study 2, we also compare those participating as spectators (207 = 70%) and as athletes (89 = 30%). Results of the MANOVA with participation type as independent variable show significant differences at the multivariate level (Wilks $\lambda = .95$, $F = 2.87$, $df = 5; 286$, $p = .01$, $\eta^2 = .05$). Univariate follow-up comparisons reveal only one significant difference in self-enhancement, which is higher for active participants ($M_{spectators} = 4.14$ vs. $M_{athletes} = 5.08$, $F = 25.85$, $df = 1; 293$, $p < .001$, $\eta^2 = .08$).

Note that no significant differences emerge in sensation-seeking ($M_{spectators} = 5.33$ vs. $M_{athletes} = 5.59$, $F = .95$, $df = 1; 293$, $p = .33$, $\eta^2 = .00$). This result is in line with the extant literature suggesting that the sensation-seeking can be equally satisfied by participating actively (Brymer & Houge-Mackenzie, 2016) and passively in edgework activities (Raggiotto et al., 2019b). Indeed, literature agrees that it is not the nature of the activity that matters but rather the intensity with which one experiences the stimulation (Hoffner & Levine, 2007).

Further, no differences emerge for destination loyalty ($M_{spectators} = 5.31$ vs. $M_{athletes} = 5.69$, $F = 1.06$, $df = 1; 293$, $p = .30$, $\eta^2 = .00$).

4.3. Summary of the results

Hypotheses 1 through 5 are supported in Study 1 as well as in Study 2. We investigated what makes individuals participating in extreme sporting events develop destination loyalty. On the one hand, destination loyalty is key to the success of subsequent editions of an event, and therefore key to profit. On the other hand, participants in extreme sporting events are high in seeking sensations, variety, and novelty (Keane, 2020). Thus, it could be difficult to attract them to a place where (and an event in which) they had already competed. Addressing sensation-seeking jointly with self-enhancement, event authenticity, and place attachment, we

showed that all these variables help drive destination loyalty. It is self-enhancement that affects destination loyalty through place attachment, and reaching self-enhancement is facilitated by event authenticity. Otherwise, their sensation-seeking tendency would lead them to search for new challenges and places, and loyalty would be a chimera. One consequence of these findings is that when participants benefit, because they feel good about themselves and their self-esteem increases, managers also benefit, as they gain those consumers' loyalty and thereby ensure the success of the next edition of their event.

Furthermore, returning visitors do not display a diminished enthusiasm for an event compared with first-time visitors, despite the variety-seeking tendency embedded in sensation-seeking. Instead, they show increased place attachment and intention to return again.

5. Discussion

In the present study, we investigate what drives the destination loyalty of consumers participating in extreme sporting events. In doing so, we draw both from psychology literature about edgework individuals and from tourism literature, developing a conceptual model of sequential moderated mediation. We posit self-enhancement and place attachment as mediators of the relationship between sensation-seeking and destination loyalty, and event authenticity as a moderator of the relationship between sensation-seeking and self-enhancement. The research hypotheses are tested in two separate studies with independent samples that reflect the heterogeneity of extreme sports disciplines and whose participants closely reflect the demographics of the target population. Results convergence in the two studies reinforces the external validity of the findings.

Previous analyses of extreme sporting events are limited not only in number (Ko, Park, & Claussen, 2008) but in scope, as they largely ignore the key motives of edgework

individuals (Brymer & Houge-Mackenzie, 2016). Several previous studies on sports and sports tourism did not separate between traditional and extreme sports participants (Brymer & Houge-McKenzie, 2016). Yet, psychology has suggested that individuals practicing extreme sports have mindsets and motives different from participants in traditional sports (e.g., Milovanovic, 2005; Lyng, 2014; Raggiotto et al., 2019a). Recent studies have shown that those differences in motives and mindsets also translate into different behaviors (Keane et al., 2020). By explicitly incorporating edgework theory and sensation-seeking theory into the theoretical framework, we capture the diversity of extreme sports tourists and account for what drives their destination loyalty.

This research contributes to the tourism literature in several ways: first, by addressing extreme sporting events rather than traditional ones, answering calls from literature (Raggiotto & Scarpi, 2020; Zhou et al., 2020). Second, by acknowledging and investigating the specific behavioral drivers that characterize extreme sport tourists. To do so, we interpret their behavior with the theoretical lenses of edgework theory and sensation-seeking theory. Our results contribute to the tourism literature by adding insights from psychology and by showing that those constructs matter, as they help explain tourism-related outcomes, such as place attachment and destination loyalty, and are affected by variables controlled by managers, such as event authenticity. Specifically, we acknowledge that, for edgework individuals, limits-pushing fears are instrumental in their constant pursuit of self-enhancement (Lyng, 2014), whether directly as athletes (Raggiotto & Scarpi 2020) or through transfer mechanisms as spectators (Fischer et al., 2011). As a result, theoretical considerations developed for events in traditional sports do not fully reflect the psychology and behavioral drivers of edgework individuals (Brymer & Houge-MacKenzie, 2016). Thus, from a theoretical viewpoint, we contribute by explicitly addressing those psychological

649 drivers, showing that they work together with tourism-related variables and outcomes in a
650 single consistent model and are significant predictors of visitors' destination loyalty.
651 Explicitly incorporating edgework theory and sensation-seeking theory into our
652 theoretical framework helps us overcome the limitations of previous studies that were unable
653 to capture the diversity of extreme sports tourists (Brymer & Houge-MacKenzie, 2016).
654 Our results suggest that it is the interplay between the psychology of extreme tourists
655 with both place-related and event-related factors that ultimately builds destination loyalty. In
656 doing so, the results validate findings from tourism research about the ability of place
657 attachment to lead to destination loyalty (e.g., Brown et al., 2016). Yet, they add
658 considerations from edgework theory, showing that also self-enhancement comes into play.
659 In doing so, results corroborate the literature in psychology in showing the centrality of
660 sensation-seeking for extreme sports participants (Cestac et al., 2011; Lyng, 2014; Marengo
661 et al., 2017; Pizam et al., 2001). However, results also show that the psychological
662 considerations from edgework theory develop into marketing relevant behaviors, and allow to
663 quantify their impact.
664 Furthermore, our findings show that individuals' tendency to seek sensations, taken
665 alone, hinders the development of destination loyalty. This evidence aligns with previous
666 studies in tourism that showed a negative relationship between sensation-seeking and loyalty
667 (Assaker et al., 2011; Jang & Feng, 2007; Niininen et al., 2004). However, we add that, when
668 event managers channel sensation-seeking in a way that contributes to the development of
669 visitors' self-enhancement, this also helps build place attachment, which ultimately leads to
670 higher destination loyalty. Overall, we contribute to the literature by proposing and showing a
671 positive indirect path from sensation seeking to destination loyalty through self-enhancement,
672 based on the tenets of edgework theory, next to the negative direct path from sensation
673 seeking to destination loyalty.

Finally, in line with previous research in tourism, we find evidence for the centrality of authenticity (Akhoondnejad, 2016; Park et al., 2019), and show that it also holds in the case of sport tourism. However, we show that the mechanism through which authenticity works in the context of extreme sporting events is to help channel sensation-seeking into self-enhancement. Otherwise, tourists' thirst for sensations and novelty, taken alone, might hamper their revisit intentions (Lv et al., 2020).

Moreover, through comparison of first-time and repeat visitors, and comparison of tourists of newer and older loyalty, we tested the strength of the relationships across different segments. Results show that the magnitude of sensation-seeking remains unvaried, meaning that the inner value or emotional charge of an event persists after repeated participation. This evidence aligns with the theorization in psychology that sensation-seeking is an inner, constantly driving force for individuals who love extreme activities (Zuckerman, 1994). Furthermore, we found a differential pattern for place attachment for first-time and repeat participants, the former exhibiting significantly less place attachment and destination loyalty than the latter. This evidence aligns with previous studies documenting that repeat participants rated attachment higher than did first-timers (Fu et al., 2019; Hwang, Lee, & Chen, 2005) in contexts different from extreme sporting events. Overall, findings for the split models positively relate to suggestions in extant tourism management literature, but extend them to the domain of extreme sporting events and dig deeper into the generic "psychological meanings" of attendees (Fu et al., 2019, p. 100).

In summary, from a theoretical viewpoint, our research translates, to the domain of tourism management, concepts from psychological theories addressing extreme contexts. It allows to understand the drivers of place attachment and destination loyalty, and finds relevant differences in the model patterns that are due to different tourists' characteristics.

5.1. Managerial implications

Developing participants' destination loyalty is crucial for enduring event success (Raggiotto & Scarpi, 2020). In this study, we show that self-enhancement affects destination loyalty through place attachment, and that self-enhancement perceptions are facilitated by event authenticity. Our findings suggest that if participants in an extreme sporting event benefit from participating in that event (through reinforcement of their self-esteem), managers benefit as well, as they gain loyal customers, which is crucial to ensuring the success of the event over time. Accordingly, managers must direct their efforts toward helping participants develop such feelings. Event managers may emphasize the provision of messages working as positive reinforcements to participants, helping them establish favorable, constructive comparisons by reporting, for instance, inspiring information about the best performances and records.

Managers need to satisfy extreme sport tourists' thirst for challenges, excitement, and sensations. One way could be to add new facilities for managing the competition. For instance, the International Triathlon event in Bardolino, Italy, added a unique two-floor grandstand, where up to 1400 participants can switch simultaneously from swimming to cycling (Triathlete, 2019). Managers could also change the event from year to year. For instance, new training programs, categories, and awards were introduced for the BMX championship in 2020 (UEC, 2020). Furthermore, event managers could partner with sports equipment brands to develop new gear for further challenges. For instance, phoenix-fly partnered with skydiving's organizers to innovate wingsuits, to allow unprecedented movement freedom during the competition.

Our results suggest that -to succeed in achieving destination loyalty- managers should channel their actions in a way to satisfy the tourists' desire for self-improvement while preserving the perceived authenticity of the event. In this vein, recent research suggests that

practitioners should offer participants the opportunity to customize their event-participation experience as a way to enhance perceptions of self-enhancement (Keane et al., 2020). For instance, in 2019, Ironman Triathlon partnered with the sports equipment brand Santini to offer Ironman participants the opportunity to customize their triathlon and cycling gear during the sporting event. Notably, providing opportunities to customize the event experience might, on the one hand, enhance participants' feelings of self-enhancement, and, on the other hand, it may boost revenues and destination loyalty.

Notably, increasing event authenticity positively contributes to building perceptions of self-enhancement, thus crucially contributing to delivering a unique tourist experience. Accordingly, managers should be aware of the need to foster increasing levels of experience authenticity by devising and communicating events consistently. Conveying a sense of the authenticity of the extreme sport experience is key to delivering uniqueness.

Finally, practitioners should be aware that targeting sensation-seekers is not enough for success. It is only when consumers derive self-enhancement through event authenticity from their sport-touristic experience that a positive relationship with the hosting destination occurs and becomes destination loyalty.

5.2. Limitations and future research

The present study is not meant to be conclusive. Yet, we believe our results are of interest to practitioners and might stimulate future research that embeds different theoretical perspectives on extreme sports. Future analyses could address further mediators and moderators, and provide qualitative data reinforcing quantitative research insights. In this vein, future studies might additionally consider further measures addressing extreme sports tourists' emotions. Those emotions could be linked to the perceptions of a certain destination and the fit between destination image and event image. By doing so, future studies could

assess, simultaneously, possible linkages between emotional responses, destination–event image fit, and destination attachment and loyalty.

Furthermore, respondents had similar sociodemographic characteristics, being mostly young males. On the one hand, this represents the target population. On the other hand, extreme sports events are evolving to include a broader public. Thus, future research could examine the influence of respondent heterogeneity on the hypothesized relationships. For instance, by looking at disciplines such as triathlon, where ages are already more mixed and females more present (Raggiotto et al., 2019a).

Further, future studies could address the phenomenon from a longitudinal perspective: does sensation-seeking decrease over time as a natural consequence of aging (Zuckerman, 1994)? Does it fade due to habituation instead of age (LaRowe, Patrick, Curtin, & Kline, 2006)? Or does it, instead, build up like a sort of addiction? (Heirene et al., 2016).

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Appendix

Table A.1

Moderated sequential mediation analysis

Hypothesis		Study	*Effect*	se	*t*	*p*	LLCI	ULCI
H1	Direct effect of sensation-seeking on destination loyalty	S1	−0.18	0.07	−2.74	0.01	−0.31	−0.05
		S2	*−.32*	*0.08*	*4.09*	*0.00*	*0.16*	*0.47*
H2	Sensation-seeking on self-enhancement	S1	0.33	0.16	2.02	0.04	0.08	0.64
		S2	*0.37*	*0.10*	*3.53*	*0.00*	*0.16*	*0.57*
H3	Moderation of event authenticity	S1	0.06	0.03	1.95	0.05	0.00	0.12
		S2	*0.38*	*0.18*	*2.20*	*.03*	*0.04*	*0.73*
H4	Self-enhancement on place attachment	S1	0.64	0.06	11.51	0.00	0.53	0.75
		S2	*0.54*	*0.05*	*11.34*	*0.00*	*0.44*	*0.63*
H5	Place attachment on destination loyalty	S1	0.34	0.06	5.31	0.00	0.21	0.46
		S2	*0.44*	*0.05*	*8.39*	*0.00*	*0.34*	*0.55*

Note. LLCI/ULLCI = lower/upper limit of the 95% confidence interval

Table A.2

Moderator analysis, conditional indirect effect of X on Y at values of the moderator

Hypothesis		Moderator: Authenticity	Study	*Effect*	se	*t*	*p*	LLCI	ULCI
H3	Self-enhancement	Low	S1	0.57	0.05	11.94	0.00	0.48	0.67
			S2	*0.37*	*0.10*	*3.53*	*0.00*	*0.16*	*0.57*
	Self-enhancement	High	S1	0.69	0.05	14.35	0.00	0.60	0.79
			S2	*0.75*	*0.14*	*5.33*	*0.00*	*0.48*	*1.00*

Note. Values for the moderator are plus/minus one SD from mean; LLCI/ULCI = lower/upper limit of the 95% confidence interval

Table A.3

Questionnaire items, means, and standard deviations

	Mean		*S.D.*		Cronbach alpha	
	S1	S2	*S1*	*S2*	S1	S2
SENSATION-SEEKING	5.56	5.41	*1.34*	*.94*	.95	.80
1. I like challenges.	5.43	5.64	*1.39*	*1.12*		
2. I like very thrilling experiences.	5.46	5.65	*1.42*	*1.13*		
3. I like feeling the adrenaline flowing.	5.53	5.73	*1.45*	*1.20*		
4. I prefer things who are excitingly unpredictable	5.41	5.05	*1.47*	*1.36*		
5. Every day is an adventure.	5.47	4.97	*1.50*	*1.51*		
PLACE ATTACHMENT	4.10	4.30	*1.38*	*1.38*	.94	.90
1. I enjoy participating in this place more than any other place	4.86	4.73	*1.62*	*1.39*		
2. No other place can compare with this place for this event	4.71	4.25	*1.54*	*1.55*		
3. This place is the best place for extreme sporting events	4.54	4.45	*1.61*	*1.54*		
4. I am very attached to this place	4.69	4.10	*1.49*	*1.77*		
5. I feel like this place is part of me	4.62	3.95	*1.42*	*1.86*		

	Mean		*S.D.*		Cronbach alpha	
	S1	S2	*S1*	*S2*	S1	S2
SELF-ENHANCEMENT	4.69	4.43	*1.30*	*1.42*	.93	.89
1. I am a better person than I was when I came to this event.	4.67	4.23	*1.29*	*1.67*		
2. I think more highly of me since I came to this event.	4.55	4.43	*1.34*	*1.64*		
3. This event has changed my perspective	4.75	4.57	*1.22*	*1.57*		
4. This event helps me become better.	4.74	4.47	*1.26*	*1.63*		
EVENT AUTHENTICITY	5.20	5.79	*1.20*	*.98*	.87	.73
1. Unique	5.23	5.90	*1.32*	*1.28*		
2. Faithful to internal rather than external ideas	5.16	5.65	*1.44*	*1.19*		
3. Retains its spirit and character despite external forces	5.18	5.82	*1.29*	*1.18*		
DESTNATION LOYALTY	4.63	5.39	*1.42*	*1.36*	.89	.84
1. It's likely that I will to revisit this event next year	4.61	5.29	*1.50*	*1.54*		
2. It's likely that I will recommend this event to my family and friends	4.54	5.48	*1.45*	*1.39*		