

BEHAVIORAL INTENTIONS IN SPORTS TOURISM: META-ANALYSIS AND STRUCTURAL EQUATION MODELING

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Abstract

This paper addresses fragmentation in sports tourism research, specifically concerning factors influencing behavioral intentions, focusing on key psychological and situational variables. Through a meta-analysis of 18 studies comprising 14,495 observations, drawn from an initial screening of 967 articles listed in the Scopus database, this study investigates the effects of perceived behavioral control, subjective norms, nostalgia, satisfaction, perceived benefit, and perceived risk, on behavioral intentions among general sport tourists.

Two distinct theoretical frameworks were examined to uncover the core drivers of intentions. In the first framework, the analysis revealed that perceived behavioral control (effect size = .58), subjective norms (effect size = .50), and nostalgia (effect size = .43) have a stronger influence on behavioral intentions than attitude or image. This finding suggests that the participatory and socially embedded nature of sport tourism amplifies the impact of practical and social factors. Nostalgia emerged as a particularly strong emotional motivator, as it fosters attachment to past sport experiences and enhances future engagement. Among the components of the Theory of Planned Behavior, perceived behavioral control highlights the significance of practical considerations, such as ease of access and affordability, in shaping tourists' intentions.

The second framework underscored satisfaction as the most influential predictor of behavioral intentions (effect size = .77), consistent with Expectancy-Disconfirmation Theory, where experiences that meet or exceed expectations lead to future engagement. Perceived benefit (effect size = 0.50) also played a significant role, indicating that anticipated rewards, such as enjoyment and social connections, positively affect decision-making. In contrast, perceived risk (effect size = -0.25) showed a negative effect on behavioral intentions, in line with Prospect Theory, which emphasizes how potential losses deter engagement, particularly in unfamiliar or high-risk settings.

These findings have practical implications for sport tourism management. Enhancing nostalgia, facilitating easy access, and fostering social connections can significantly boost behavioral intentions. Additionally, strategies that prioritize high-quality experiences to maximize satisfaction, while emphasizing perceived benefits and minimizing perceived risks through transparent safety measures, can further encourage positive engagement. Future research should explore specific conditions, such as familiar destinations, group dynamics, and satisfaction-driven contexts, that might enhance the influence of these key factors.

Keywords: meta-analysis, sport tourism, behavioral intentions, motivational factor framework, evaluative factor framework

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BACKGROUND

Sport tourism, a rapidly expanding sector within the tourism industry, uniquely combines passion for sports with an exploration of diverse destinations. As travelers increasingly seek out experiences that align with their personal interests, understanding the factors that drive behavioral intentions in sport tourism has become crucial. This shift towards personalized, interest-driven travel aligns with Self-Determination Theory and Value-Expectancy Theory, which highlight how individuals are more likely to engage in activities that resonate with their intrinsic motivations, identity, and values (Correia & Pimpão, 2008; Ryan & Deci, 2000). In the context of sport tourism, emotional engagement and personal fulfillment are particularly potent motivators (Hinch et al., 2018). Recognizing these evolving needs is essential for designing experiences that deepen engagement and satisfaction among sport tourists.

Despite extensive research on general tourism motivations, the unique psychological, social, and situational drivers, specific to sport tourism remain underexplored. Prior studies have focussed narrowly on individual motivators, such as satisfaction or social influence, without fully examining how a broader range of factors—including emotional (e.g., nostalgia), cognitive (e.g., attitude, satisfaction), and situational (e.g., perceived behavioral control, subjective norms, perceived risk) elements—interact to shape sport tourists' intentions. The Theory of Planned Behavior, while widely used in tourism research, emphasizes only cognitive factors (attitude, subjective norms, and perceived behavioral control) in predicting intentions, overlooking emotional drivers such as nostalgia, which has been shown to significantly impact tourism behavior (Ito, 2023; Wattanacharoensil et al., 2024). Given the deeply personal and often sentimental nature of sport tourism, integrating nostalgia into the predictive framework aligns well with Social Identity Theory and the nostalgia concept in consumer behavior, both of which recognize the profound impact of personal history and social identity on decision-making (Holbrook & Schindler, 2003; Hornsey, 2008; Turner, 1987).

This research addresses this gap by integrating the Theory of Planned Behavior with emotional, cognitive, and situational factors, drawing from Expectancy-Disconfirmation Theory and Prospect Theory to develop a more comprehensive framework. Expectancy-Disconfirmation Theory provides insight into the role of satisfaction in reinforcing repeat visitation and loyalty, a critical component for maintaining engagement in sport tourism (Oliver, 1980). Prospect Theory, which emphasizes how potential losses (risks) carry more weight in decision-making than equivalent gains, is also essential in understanding the deterrent effect of perceived risk (Barberis, 2013). Together, these theories allow for a holistic examination of behavioral intentions that includes cognitive beliefs, emotional connections, satisfaction, and risk.

To achieve a more robust understanding of these relationships, this study employs meta-analysis, a method particularly well-suited for synthesizing existing research to derive generalizable findings. Meta-analysis aggregates the effect sizes from multiple studies, allowing for a more precise estimation of the relationships between variables, and accounting for variations across different contexts and study designs. This method is essential for sport tourism research, where existing studies may yield varying results due to differing populations, settings, and methodologies. By using a random-effects model, the meta-analysis in this study captures between-study variance, providing a clearer picture of the overarching trends in sport tourists' behavioral intentions. This approach not only enhances the statistical power of the findings but also offers a more generalized understanding of how key factors interact to influence behavioral intentions across diverse sport tourism contexts.

Ultimately, this study aims to contribute theoretically by proposing a more inclusive model that reflects the unique motivations of sport tourists using a meta analysis. By addressing

this research gap, it not only enhances our academic understanding of sport tourism but also offers practical insights for destination managers and event organizers on how to foster stronger behavioral intentions through targeted strategies. This integrated approach provides a robust foundation for both academics and practitioners, supporting the optimization of sport tourism experiences to meet the evolving needs of today's travelers.

METHOD

This study examines the relationships between key variables and behavioral intentions in sport tourism. The search process follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. During the identification stage, 967 records were retrieved from the Scopus database using the keywords "sport tourism," "sport tourist," "sport management," "sport marketing," and "intention". In the screening stage, structural equation modeling was used as a criterion, narrowing the selection to 163 articles. Subsequently, 103 full-text articles containing constructs from the Theory of Planned Behavior, sport nostalgia, risk, benefit, and satisfaction, were assessed for eligibility. Ultimately, 18 studies with full correlation matrices including the predefined constructs were included in the quantitative synthesis.

There are two frameworks, which are motivational factors and evaluative factors, used for meta analysis. Two frameworks are tested, each based on variables derived from theoretical models that support the understanding of behavioral intentions of tourists in sport settings. These frameworks represent distinct dimensions influencing behavioral intentions in sport tourism, focusing on different theoretical perspectives and variables relevant to tourists' decision-making processes.

The first framework uses the Theory of Planned Behavior alongwith nostalgia, image, and identification factors, aligning closely with psychological and social theories in consumer behavior. The Theory of Planned Behavior is particularly suited to exploring how cognitive (attitude), social (subjective norms), and control-based (perceived behavioral control) influences interact with emotional drivers (nostalgia) and personal identification. This framework also uniquely captures motivational factors that drive tourists to act, based on internal emotions (nostalgia, identification), social pressures (subjective norms), and perceived control over their actions (perceived behavioral control). These elements can be thought of as motivators because they stimulate a proactive desire to participate. One implication from this framework is that the sport tourist decisions are often made in the context of social and emotional settings, such as group attendance and nostalgic connections. This setting involves more socially embedded and emotionally driven decisions.

However, the second framework focuses on risk, satisfaction, and benefit, which are central to economic and value-expectancy theories, such as Utility Theory and Prospect Theory. This case captures more of the cost-benefit analysis that tourists might engage in when deciding on travel, addressing perceived risks and benefits from a rational utility-maximization perspective. Moreover, it introduces evaluative factors such as risk, satisfaction, and benefit, which tourists may weigh more analytically. These factors influence whether tourists find an experience worthwhile or safe enough, making them more evaluative in nature. This could imply that the emphasis on risk and benefit reflects a more practical consideration of travel outcomes and potential hazards, which might come into play especially for first-time visits or less familiar destinations.

In the meta-analysis, the effect size of each relationship between predictor variables and behavioral intentions is calculated. A random-effects model is used to account for potential between-study variance, acknowledging that differences in effect sizes may arise from genuine variation in study contexts rather than only sampling error. This model assumes that effect sizes

may differ due to underlying factors unique to each study, such as population characteristics or methodological variations. By accommodating these differences, the random-effects model enhances the robustness of the findings, providing a more generalized interpretation and allowing results to be applicable across diverse samples and contexts.

RESULTS

Cohen (1988) recommended a criterion to interpret different effect sizes: $.1 < r_{RE}^+ < .3$ (small), $.3 < r_{RE}^+ < .5$ (medium), and $r_{RE}^+ > .5$ (large). As shown in Table 1, the mean weighted correlation suggests that relationships vary from small to large effect sizes (ranging from -0.25 to 0.71). Specifically, perceived behavioral control exhibits the strongest relationship with behavioral intentions in the first framework, while satisfaction demonstrates the strongest relationship with behavioral intentions in the second framework. Heterogeneity statistics further support the reliability of the study's findings, with i^2 values indicating substantially true between-study variability (ranging from 74.41% to 98.40%), except for the pair of image and behavioral intentions, which shows low heterogeneity at 18.7%. This variability suggests an acceptable level of true heterogeneity across studies. Additionally, the Fail-safe N, a statistical test assessing the robustness of the effect sizes, falls within the acceptable range. The Fail-safe N exceeds the threshold of $5k + 10$, indicating that the mean weighted correlation is robust and reliable. The importance of these factors is empirically validated through the results of structural equation modeling, as presented in Table 2. The appendix provides additional details, including the random-effects model and corresponding forest plot.

Table 1 Result of Meta-analysis Effect Sizes of Key Constructs in Sport Tourism

Correlation	k	n	r_{RE}^+	$r_{\{95\%CI\}}^+$	τ^2	i^2	h^2	Fail-safe N	References
SN-BI	2	1079	.43	[.34,.51]	.0374	92.90	14.09	4743	(Cho et al., 2020b) (Cho et al., 2020a)
ATT-BI	3	1200	.27	[.17,.36]	.0366	93.17	14.64	2057	(Kaplanidou & Gibson, 2012) (Cho et al., 2022) (Wattanawaraporn & Manosudhtikul, 2024)
SJN-BI	4	1584	.5	[.41,.58]	.0276	91.25	11.44	3380	(Kaplanidou & Gibson, 2012) (Chen & Lin, 2022) (Cho et al., 2022) (Wattanawaraporn & Manosudhtikul, 2024)
PBC-BI	2	830	.58	[.27,.78]	.0756	96.85	31.81	263	(Cho et al., 2022) (Wattanawaraporn & Manosudhtikul, 2024)
SQ-BI	2	668	.71	[.60,.80]	.0176	85.30	6.80	386	(Xiao et al., 2020) (Kaplanidou & Vogt, 2007)
EI-BI	4	1917	.18	[.16,.21]	.005	18.70	1.23	1105	(Kaplanidou & Gibson, 2012) (Cham et al., 2022) (Dash, 2024)

Table 1 (Continued)

SAT-BI	6	2687	.77	[.39,.92]	.5635	99.64	278.82	6117	(Kaplanidou & Vogt, 2007) (Xiao et al., 2020) (Akbulut et al., 2024) (Pahrudin et al., 2024) (Hwang et al., 2020) (Gao et al., 2024) (Kaplanidou & Vogt, 2007)
IDEN-BI	2	977	.34	[.22,.46]	.0331	94.12	17.01	1126	(Cho et al., 2020b) (Hwang et al., 2020)
RISK-BI	4	1949	-.25	[-.37,-.12]	.0496	96.52	28.76	1844	(Akbulut et al., 2024) (Noh & Vogt, 2013) (Kim et al., 2021) (Dash, 2024)
BEN-BI	2	1014	.5	[.02,.79]	.2095	98.40	62.78	305	(Akbulut et al., 2024) (Funk et al., 2009) (Dash, 2024)
WOM-BI	3	590	.42	[.27,.54]	.0105	74.41	3.90	81	(Cham et al., 2022) (Jiang & Chen, 2019)

Note. r_{RE}^+ = meta-correlation coefficient with random effects, $r_{\{95\%CI\}}^+$ = 95% confidence interval of meta-correlation coefficient.

τ^2 = the heterogeneity variance that has to be estimated, which is equivalence to $Var(u_i)$, i^2 = the degree of heterogeneity of effect sizes, h^2 = the degree of heterogeneity (squared estimated residual standard deviation from the slope of the un-weighted least squares regression line, SN = Sport Nostalgia, ATT = Attitudes, SJN = Subjective Norms, PBC = Perceived Behavioral Control, SQ = Service Quality, EI = Event Images, SAT = Satisfaction, IDEN = Identification, RISK = Risk, BEN = Benefit, WOM = Word-of-Mouth, BI = Behavioral Intention.

Table 2 Confirmation of the Significance of Factors Using Structural Equation Modeling Approach

Relationship	Standardized Beta
SN=>BI	.29**
ATT=>BI	.24**
SJN=>BI	.26**
PBC=>BI	.33**
SQ=>BI	.31**
EI=>BI	.16*
SAT=>BI	.48***
IDEN=>BI	.26**
RISK=>BI	-.19**
BEN=>BI	.22**

Note. This confirmation is based on observations from 411 sport tourists. All standardized beta coefficients are significant at the levels of <0.01 (***), <0.05 (**), and <0.1 (*), respectively. SN = Sport Nostalgia, ATT = Attitudes, SJN = Subjective Norms, PBC = Perceived Behavioral Control, SQ = Service Quality, EI = Event Images, SAT = Satisfaction, IDEN = Identification, RISK = Risk, BEN = Benefit, BI = Behavioral Intention.

DISCUSSION

The results of the meta-analysis highlight the importance of various psychological factors on behavioral intentions in sport tourism, specifically among general sport tourists. Based on findings from the first framework, perceived behavioral control, subjective norms, and nostalgia, for general sport tourists may outweigh attitude and image due to the nature of sport tourism itself, which is often participatory and socially embedded. The pragmatic (perceived behavioral control) and social (subjective norms) factors, coupled with emotional nostalgia, collectively have a more direct influence on decision-making. In contrast, while attitudes and image shape perceptions, their influence is less pronounced and has a more limited practical impact on driving actionable intentions. More specifically, the strong influence of sport nostalgia (effect size = .43) aligns with the notion that nostalgia serves as a powerful emotional motivator. According to research, nostalgic memories could create a sense of identity and attachment to past sport experiences, enhancing future engagement intentions (Cho et al., 2020a, 2020b). This effect could be stronger in tourism, where revisiting locations tied to personal or collective memories reinforces a sense of continuity and emotional satisfaction. Moreover, studies on nostalgia in sport contexts demonstrate its role in cultivating a lasting connection with sports and the locations associated with it, thus motivating repeated engagement and behavioral intentions.

Among Theory of Planned Behavior components, perceived behavioral control (effect size = .58) has the strongest impact on behavioral intentions. This finding is consistent with the Theory of Planned Behavior's premise that when individuals perceive greater control over performing an action (like traveling to a sports destination), they feel more empowered and, hence, more likely to engage. In sport tourism, factors such as accessibility, affordability, and flexibility of arrangements directly increase perceived control. For general sport tourists, perceived behavioral control may be heightened by logistical considerations like ticket availability, ease of travel, and accommodating schedules, which are practical enablers of behavioral intentions. Empirical evidence shows that perceived behavioral control is particularly predictive of behavioral intentions in tourism, where travel feasibility plays a significant role (Cho et al., 2022; Wattanawaraporn & Manosudhtikul, 2024). Moreover, the coefficient for subjective norms (effect size = .5) indicates the powerful role of social influence, suggesting that sport tourists are motivated by perceived social expectations. This aligns with the idea that individuals often make decisions based on the anticipated approval of their peers, family, or sports communities. Sport tourism can be a social activity where individuals feel validated by the experiences and endorsements of others, particularly within fan communities. Meta-analytic research supports the idea that subjective norms in group-oriented activities, such as sports, are robust predictors of behavior, as people seek conformity and acceptance within their social circles (Chen & Lin, 2022; Cho et al., 2022; Kaplanidou & Gibson, 2012; Wattanawaraporn & Manosudhtikul, 2024). Although attitude has a positive effect (effect size = .27), it is comparatively lower than perceived behavioral control and subjective norms. This may be because attitudes in sport tourism, while generally favorable, often contribute less to actual intentions when logistical concerns and social factors are prioritized. Attitudes toward sports destinations can sometimes be more abstract, based on preferences rather than definitive actions, thus playing a more supportive rather than determinative role in behavioral intentions.

The effect size of .18 for image indicates that while destination image influences behavioral intentions, it is less potent compared to nostalgia and the Theory of Planned Behavior components. This could be due to the fact that destination image works as a background influencer, shaping overall perceptions of a destination but not necessarily determining intentions directly (Cham et al., 2022; Dash, 2024; Kaplanidou & Gibson, 2012; Kaplanidou & Vogt, 2007). Image can influence initial interest, but for sport tourists, this may

be secondary to the experiential and social aspects embodied by nostalgia and subjective norms. With a coefficient of .34, identification shows a moderate influence on behavioral intentions. Identification with a team, event, or sport subculture can cultivate loyalty, creating a personal connection to the experience. Studies in sports psychology and marketing indicate that identification often complements nostalgia by deepening attachment to specific elements within the sports context, thus reinforcing intentions (Cho et al., 2020b; Hwang et al., 2020).

In the second framework, the strong effect (effect size = .77) of satisfaction on behavioral intentions aligns with the Expectancy-Disconfirmation Theory and Customer Satisfaction Theory, suggesting that when experiences meet or exceed expectations, satisfaction increases, leading to higher future engagement intentions (Akbulut et al., 2024; Gao et al., 2024; Hwang et al., 2020; Kaplanidou & Vogt, 2007; Pahrudin et al., 2024; Xiao et al., 2020). For sport tourists, satisfaction results from the quality of their experiences, including factors such as event organization, facility standards, and emotional engagement, all of which reinforce the desire to return or to recommend the experience to others. Studies across tourism and sport tourism domains confirm that satisfaction strongly predicts repeat visitation and recommendations (Akbulut et al., 2024; Gao et al., 2024; Hwang et al., 2020; Kaplanidou & Vogt, 2007; Pahrudin et al., 2024; Xiao et al., 2020). Positive experiences not only foster immediate enjoyment but also build emotional connections that encourage future engagement. For example, tourists who feel that their experience was memorable or exceeded their expectations are more likely to develop loyalty, making satisfaction the most significant factor in predicting intentions.

The moderate effect of benefit (effect size = .5) aligns with Value-Expectancy Theory, which posits that individuals assess behaviors based on expected benefits and anticipated value. In sport tourism, perceived benefits include enjoyment, social connections, health improvements, and cultural experiences, all of which contribute to a tourist's decision to engage. High perceived benefit increases an activity's perceived utility, making it more likely that tourists will participate. Research in tourism consistently shows that perceived benefits, particularly those related to personal enjoyment and social value, enhance behavioral intentions (Akbulut et al., 2024; Dash, 2024; Funk et al., 2009). Tourists are drawn to experiences that offer a net positive return, and this attraction increases when the experience provides tangible and intangible rewards. For instance, if tourists perceive that a sports event offers unique cultural insights, personal enjoyment, or health benefits, they are more inclined to engage in the activity. The negative impact of risk on behavioral intentions (effect size = -.25) aligns with Prospect Theory and Risk Aversion Theory. Prospect Theory explains that individuals weigh potential losses more heavily than gains, meaning that when risks are perceived, they create a psychological barrier to engagement. For sport tourists, perceived risks might include safety concerns, financial costs, or the unpredictability of event logistics, all of which can deter participation if not managed. Studies in tourism reveal that perceived risks, particularly those related to safety and financial considerations, reduce behavioral intentions (Akbulut et al., 2024; Dash, 2024; Kim et al., 2021; Noh & Vogt, 2013). Tourists are generally risk-averse, especially in unfamiliar or high-intensity settings. For example, if sport tourists perceive that the activity could involve financial loss or safety issues, their likelihood of participating diminishes.

Based on the findings, emotional anchoring of satisfaction might be a key characteristic which makes satisfaction outweigh both benefit and risk. Satisfaction captures the cumulative, often emotional, outcome of an experience, which has a powerful reinforcing effect. Unlike benefit, which is assessed rationally, satisfaction is an emotional state that reflects the fulfillment of expectations and creates a lasting connection to an experience. This emotional anchoring could make satisfaction a more potent driver of future behavior than rational benefit evaluation. Also, the enduring impact of positive experiences might be another factor that

highlights satisfaction as a main driver in the second framework. Positive experiences reinforce loyalty and the likelihood of returning to an experience. According to Affective Commitment Theory, high satisfaction fosters a psychological commitment to an activity or destination, meaning tourists are more likely to return, even if they may need to balance benefits and risks (Zhong et al., 2017).

Implications

In the first framework, the positive impact of nostalgia on behavioral intentions suggests that nostalgia plays a significant, standalone role, separate from the Theory of Planned Behavior's traditional components. This supports expanding the Theory of Planned Behavior with nostalgia as an additional factor in sport tourism models, potentially leading to a modified Nostalgia-Driven Theory of Planned Behavior in sport tourism since the impact of nostalgia is likely strongest when tourists have previous positive experiences with a particular sport or destination. This could be frequent visits, team loyalty, or personal milestones, making nostalgia salient for decision making. Given nostalgia's strong influence, marketing campaigns could center around reliving memorable sports moments. The strategy is most effective in destinations with a history of notable sports events or recognizable figures, making nostalgia highly accessible for promotional use by providing personalized experiences that allow tourists to reconnect with past events, like flashback events, historic memorabilia, or encounters with legendary athletes.

The strength of perceived behavioral control probably implies that logistical ease (e.g., accessibility, cost) significantly influences behavioral intentions. This finding suggests that perceived behavioral control might act as a stronger predictor than attitude in settings where tourists assess ease of participation as crucial, especially for short-duration events or highly accessible local sports venues. This could be due to the fact that high perceived control is influential in low-barrier settings, such as affordable events or venues with easy transportation options. Practicality-oriented tourists who evaluate ease of access would be particularly sensitive to perceived behavioral control. Hence, it is important to ensuring ease of access through pricing, travel support, and flexible schedules since they could amplify perceived control and increase behavioral intentions. This approach is likely to succeed in urban or local sports events with moderate price points, where logistical ease can be controlled by organizers, significantly impacting tourists' decisions by offering tiered ticket pricing, shuttle services, or event passes, to enhance perceived behavioral control, especially for tourists concerned with convenience.

The notable effect of subjective norms implies that social influences significantly motivate tourists, especially in group-attendance scenarios. The result supports Social Identity Theory within sport tourism, suggesting tourists' intentions are influenced by their identification with fan communities or social groups. For theoretical models, this highlights the role of group identity and community-based marketing strategies. It could be that this influence is strongest when tourists identify with fan communities or attend events in a social context, such as family or friend groups, who reinforce intentions. Hence, it is useful to create group incentives to strengthen subjective norms since subjective norms are significant for group-based tourists, so fostering social experiences can enhance the normative expectation of attendance. Potential strategy could be accomplished by reinforcing social identity through branded fan merchandise or exclusive fan club zones.

For the second framework, the high effect of satisfaction on intentions indicates that experiential quality is paramount in sport tourism. This reinforces the Expectancy-Disconfirmation Theory in the context of sport tourism, suggesting that satisfaction heavily influences repeat visitation in experiential settings. It also suggests satisfaction should be

integrated more prominently in sport tourism intention models. A potential strategy could be prioritization of quality control and feedback to enhance satisfaction by regularly collecting and addressing tourist feedback, maintaining event organization standards, and ensuring staff responsiveness, to create a satisfying experience that exceeds expectations.

The positive influence of benefit highlights the importance of perceived value, supporting Value-Expectancy Theory as a key theoretical approach. Theoretical models should include perceived benefit as a utility-driven factor, emphasizing expected outcomes such as personal enjoyment, health benefits, or cultural learning, in tourism motivations. This effect is likely to be pronounced when sport tourism activities offer substantial personal value, such as health or social benefits, which align with tourists' personal goals. Hence, marketing messages should emphasize specific benefits such as unique experiences, community events, or physical wellness aspects, presenting a destination as a source of personal value. This strategy could be ideal for tourists who value personal development, health, or social connection, such as attendees of sports festivals, wellness retreats, or active sports events.

The negative effect of risk reinforces Prospect Theory in the context of tourism, where perceived losses discourage participation. This suggests that managing risk perception is critical, and theoretical models should weigh perceived risk as a potential deterrent that can outweigh benefits, especially in high-risk or uncertain tourism activities. The influence of risk is particularly significant in unfamiliar destinations or high-intensity sports activities where potential hazards (e.g., safety or financial risk) are more prominent. Hence, a potential strategy might be the application of messages that addresses common concerns, such as safety protocols, on-site medical support, or flexible refund options, to minimize perceived risks and reassure tourists.

Potential Conditions for Future Research

The First Framework

Perceived behavioral control, subjective norms, and nostalgia, can indeed outweigh attitude and image under several specific conditions that are worth future verification. The first potential condition is high accessibility and low barriers to participation. When sport tourism events or activities are easy to access, affordable, and require minimal planning, perceived behavioral control becomes a stronger determinant of intentions. For a local sporting event or accessible tourist location, general tourists are likely to perceive greater control over their participation as they don't face significant financial or logistical barriers. This heightened sense of control directly boosts their intentions to attend or participate, making perceived behavioral control a more influential factor than attitude or image.

The second potential condition is strong social influence and group dynamics. When tourists are part of a fan group, family, or peer group where participation is expected or encouraged, subjective norms become a powerful driver. In cases where fans travel in groups or attend events as part of a community experience (e.g., a family tradition of attending sports games or a fan club trip), subjective norms are likely to dominate decision-making. Individuals are motivated by social approval and the desire to maintain group cohesion, making them more inclined to attend than if they were deciding individually based solely on their own attitude toward the event.

The third potential condition is the presence of nostalgic ties to past experiences. When the event or destination holds nostalgic value—such as a place associated with past memorable experiences—nostalgia drives the intention to revisit or participate again. A tourist who has fond memories of a past championship game or a childhood visit to a famous stadium is likely to feel a stronger connection to the experience through nostalgia. This emotional attachment

can be more influential than general attitude or image as it represents a personal and irreplaceable connection, prompting repeat participation.

The fourth potential condition is situations in which there is a lower emphasis on personal evaluation or image perception. This occurs when general tourists are less concerned with the evaluative aspects of the destination's image or their attitude toward it, and are more focused on participation or social aspects. For a general tourist attending a local sports event without a strong prior interest in the destination's reputation or cultural image, their decision to attend is more influenced by whether they feel they can easily join (perceived behavioral control), whether friends or family are attending (subjective norms), or whether they have a nostalgic connection to the activity. In this case, image and personal evaluative attitude are background considerations, while practical and social factors take precedence.

The fifth potential condition is short-term, spontaneous decision-making. When sport tourism participation is spontaneous, practical factors such as perceived ease of access and social endorsement are prioritized over deeper attitudes and destination image. A tourist who decides at the last minute to attend a sports game with friends is more likely to be influenced by the ease of making this decision (perceived behavioral control) and by the fact that friends are also going (subjective norms). In such short-term decisions, attitudes and image are often secondary to immediate social and logistical factors, which directly shape tourists' intentions.

Finally, high levels of familiarity with the destination or activity could be a potential condition, as when tourists are already familiar with a sport tourism destination or activity, they may rely less on image or attitude and more on pragmatic factors. For a sports enthusiast who frequently visits a certain stadium or destination, familiarity reduces the novelty factor associated with image. Instead, their intention to revisit is likely based on how easily they can access the experience (perceived behavioral control) or if others are attending (subjective norms), as the perceived image or their general attitude toward the venue no longer significantly influences their decision.

The Second Framework

The potential four conditions under which risk, satisfaction, and benefit influence behavioral intentions among sport tourists with observed impacts (risk: -0.25, satisfaction: 0.77, benefit: 0.5) could be the high satisfaction context when the overall experience quality aligns with or exceeds tourists' expectations. In this case, satisfaction strongly drives behavioral intentions, as per Expectancy-Disconfirmation Theory. In settings where satisfaction is high, tourists' positive memories and fulfilled expectations strengthen their likelihood of returning or recommending the experience, as per Expectancy-Disconfirmation Theory. A well-organized sports event, with seamless logistics, engaging activities, and excellent amenities, results in high satisfaction. This condition is often seen in large, prestigious sports events where organizers have dedicated resources to ensure high-quality experiences.

The second potential condition is perceived benefit as a motivational factor when the perceived benefits of the experience (e.g., enjoyment, social connection, physical health) are clearly communicated and evident to the tourist. This aligns with Value-Expectancy Theory, where the expectation of tangible or intangible rewards strengthens intentions. Perceived benefits are likely to have a substantial effect when tourists feel that the experience adds value to their lives, meeting both personal and social expectations. An event that emphasizes unique or meaningful benefits, such as health improvement, the thrill of competition, or cultural immersion, enhances the perceived value for tourists. Benefits can also increase when there is social recognition or exclusivity associated with attendance, such as a VIP experience or access to exclusive content.

Moderate or manageable risk could be the third condition. This would occur when perceived risk is not overwhelming and tourists feel the potential negatives are outweighed by

satisfaction and benefits. According to Prospect Theory, perceived risks diminish behavioral intentions when perceived losses outweigh gains, but moderate risk can be acceptable if satisfaction and benefits are significant. This effect is realistic when tourists feel that safety protocols reduce risk to a tolerable level, allowing perceived benefits and satisfaction to drive their decision-making. For example, in a moderately risky adventure sport, such as zip-lining or rock climbing, tourists may accept some level of risk, if the rewards (e.g., thrill, enjoyment, social sharing) are emphasized. The risk is also more manageable when there are clear safety measures, insurance, or professional guides available.

Familiar or reputable destinations with a proven track record could be an interesting condition. When a sport tourism destination or event has a reputation for safety and quality, tourists may be more willing to accept moderate risk due to established trust. Familiarity and reputation can psychologically diminish perceived risk, as tourists feel reassured by the destination's proven record, and the benefits and satisfaction have a more prominent impact. A recurring event or a well-known venue with a track record of delivering safe and high-quality experiences, such as a popular marathon in a major city, reduces perceived risk. Tourists' familiarity with a destination or the positive reputation of an event helps mitigate perceived risk and emphasizes satisfaction and benefit.

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APPENDIX

Forest plot



