



Factors Influencing the Continuance Intention to Participate in Extreme Sports

ChiLin Yu^a, Kyungro Chang^{b*}, Taehee Kim^{c*}, Cheng Wang^d

^aDoctoral Candidate, College of Sport Science, Sungkyunkwan University, Suwon, Korea

^bProfessor, College of Sport Science, Sungkyunkwan University, Suwon, Korea

^cAssociate Professor, College of Sport Science, Sungkyunkwan University, Suwon, Korea

^dProfessor, Department of Physical Education, Northwestern Polytechnical University, Xi'an City, China

*Two co-corresponding authors (Kyungro Chang and Taehee Kim) contributed equally to this work.

Abstract

The exponential growth in engagement with extreme sports in recent decades has surpassed our understanding of the perceptions and personal experiences of those individuals who participated. This research explores the relationship between self-efficacy, perceived enjoyment, perceived risk, attitude toward behavior, and continuance intention within the framework of the theory of planned behavior. The study collected data from 193 parkour enthusiasts who associated with Chinese amateur parkour clubs. Hypotheses were verified using structural equation modeling using AMOS 26.0. The results demonstrate notable associations across all categories, however, the hypothesis that perceived risk will influence attitude toward behavior was not supported. The study concludes with discussions on the implications for scholars and practitioners and suggestions for future research.

Key words: self-efficacy, attitude, continuance intention, extreme sports

Introduction

Extreme sports are activities in which individuals challenge the limits of their safety or endurance (Raggiotto & Scarpi, 2018), engaging in pursuits involving high speed, height, depth, or perceived danger, and incorporating elements of heightened risk (Zhou et al., 2020). Self et al. (2007) reported that the popularity of extreme sports has witnessed remarkable growth since the mid-70s, including activities such as bungee jumping, canyoning, skydiving, and surfing.

Although traditional sports and exercise have shown a low level of participation among a significant portion of the population, extreme sports have experienced a rapid surge in participation and are now included in the Olympic Games (Brymer et al., 2020).

The exponential growth of extreme sports can be attributed to the transformation in sport and leisure activities over recent decades (Brymer & Mackenzie, 2017). As a consequence of this trend, individuals are seeking enhanced meaning in their lives through novel outlets (Puchan, 2004). Despite the inherent risks associated with these sports, both novices and experts are showing a growing interest in participating in extreme sports (Keane et al., 2020). What was once a

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Correspondence : kchang@skku.edu, kimtaehee@skku.edu

young, relatively obscure, and niche phenomenon, extreme sports draw thousands of participants from around the world and have evolved into a multi-billion dollar industry (Raggiotto et al., 2020). In this domain, a significant portion of the revenues is derived from customer-athletes whose income exceeds the average, thus representing a substantial and potentially lucrative market (Raggiotto & Scarpi, 2018).

With the increase in participation in extreme sports and the growth of the industry, researchers are also conducting various studies related to extreme sports (Self et al., 2007). Theoretical perspectives on extreme sports have often portrayed participants' behavior by emphasizing abnormal behaviors associated with risk, characterizing extreme sports as an outlet for "crazy" individuals with an unhealthy relationship to fear (Brymer & Schweitzer, 2013). However, these negative stereotypes of high-risk sports participants may not accurately reflect their true experiences, and the analytical frameworks employed may fail to consider the unpredictable and spontaneous nature of extreme sports participation (Brymer & Schweitzer, 2013).

Kazimierczak et al. (2019) pointed out that despite the growing interest in extreme sports worldwide in recent years, the complex factors contributing to a strong commitment to extreme sports are still rarely investigated. Despite Brymer and Schweitzer's (2013) study exploring the positive psychological and emotional outcomes associated with participation in extreme sports, such as the development of courage, humility, and the transformative benefits of fear, the current body of knowledge exhibits a deficiency in comprehending the impact of individual traits and subjective interpretations of extreme sports on the engagement of extreme sports enthusiasts. According to the theory of planned behavior (TPB), the probability of engaging in a particular behavior is contingent upon an individual's intention to perform that behavior. This intention, in turn, is influenced by the individual's attitudes towards the behavior and their perceptions of normative influence. Behavioral intention is commonly

employed to gauge participants' perceptions of the sporting experience and to forecast their continuous behavior (Kim et al., 2021).

TPB has been extensively utilized in various domains, including weight loss (Schifter & Ajzen, 1985), exercise (Hagger et al., 2001), sport event attendance (Cunningham & Kwon, 2003), exercise and diet behaviors (Hagger & Chatzisarantis, 2005), and physical activity (Hagger et al., 2001; Jackson et al., 2003). Given that the aim of our research is to empirically examine a set of factors that contribute to enhancing participants' intention to continue engaging in extreme sports, we believe that the TPB is well-suited for this study. Therefore, this study aims to investigate the factors influencing individuals' intention to continue participation in extreme sports based on TPB.

Conceptual Background and Hypotheses Development

Extreme sports are defined as "leisure activities where the most probable consequence of a mismanaged mistake or accident is death (Brymer, 2010)." Additionally, they encompass a wide range of non-traditional independent and organized adventure sports (Brymer & Schweitzer, 2013). Mostly, B.A.S.E. jumping, kayaking, 'free solo' climbing, mountain biking, skateboarding, snowboarding (Puchan, 2004) and parkour (Miller & Demoiny, 2008) clearly fall under the definition of extreme sport. In the past two decades, the popularity of extreme sports has witnessed exponential growth (Brymer & Mackenzie, 2017).

As participation in extreme sports increases, conducting research in the domain of extreme sports became a global phenomenon (Self et al., 2007), and it has extensively investigated various aspects related to participation, including perceptions, motivations, risk-taking behavior, and personality characteristics. Some research has been dedicated to exploring the motivational factors that drive individuals to participate in extreme sports (Allman et al., 2009). Furthermore,

other studies have identified factors influencing the continued participation intention of extreme sports participants (Boudreau et al., 2020).

Continuance intention, an individual's psychological inclination to consistently engage in a specific behavior (Jun et al., 2020), has been subject to examination in diverse contexts to predict and comprehend individuals' future actions (Ajzen, 1991; Cho et al., 2020). Furthermore, more attention has been directed towards individuals' behaviors during the post-adoption stages, with a particular focus on their continuance intention, which assumes a pivotal role in today's business context (Song et al., 2018). Additionally, continuance intention has been the central subject of significant theoretical advancements and empirical progress in various research endeavors (Nabavi et al., 2016).

In line with TPB, behavioral intention precedes behavior and conveys information or beliefs about the likelihood of individuals engaging in a specific behavior (Madden et al., 1992). In the realm of sport, behavioral intention is commonly employed to forecast athletes' sustained behavior and to gauge their perceptions of the sporting experience (Kim et al., 2021). Hence, continuance intention serves as a critical determinant of behavioral outcomes due to its capacity to facilitate the continuation of physical activities and ensure consistent participation.

Ajzen (2002) proposed that self-efficacy which reflects a person's ability and confidence in performing a behavior should be considered in TPB. Self-efficacy, representing an individual's confidence in their abilities in various situations, constitutes a significant construct within the framework of TPB. It particularly reflects a person's internal sense of control (Hagger et al., 2001). In the realm of sports, self-efficacy is theorized to exert influence on individuals' activity selection, effort allocation, and persistence levels in the face of failure or aversive stimuli (Moritz et al., 2000). Baretta et al. (2017) found that participation in risky sports is associated with participants' sensation-seeking and self-efficacy beliefs. Previous studies have found that

self-efficacy may express differently within the high-risk sport participants (Llewellyn et al., 2008). According to Watson and Pulford (2004), self-efficacy is the principal variable associated with risk-seeking decision. Understanding the role of self-efficacy is essential in examining the sustainability of engagement in extreme sports.

Self-efficacy, a crucial determinant of human behavior, has been observed influencing perceived enjoyment and perceived risk in various domains (Baretta et al., 2017). Social cognitive theory (Bandura, 1999) also provides a theoretical framework for understanding the role of self-efficacy in the enjoyment of physical activity. Perceived enjoyment and perceived risk have been identified as two significant motivational factors in engagement in extreme sports (Zhou et al., 2020). Previous studies have frequently examined the perception of enjoyment and risk as antecedents to attitudes toward behavior, subsequently influencing individuals' intentions (Kim et al., 2017; Makhitha and Ngobeni, 2021). Individuals' positive or negative evaluations of a certain behavior influence attitudes toward that behavior. This implies that individuals tend to develop a favorable attitude toward a behavior when they anticipate a favorable outcome upon its performance, whereas they are prone to form unfavorable perceptions when foreseeing negative consequences (Makhitha & Ngobeni, 2021). According to the flow theory, the experience of a flow state, characterized by a sense of enjoyment and absolute immersion in an activity, constitutes a compelling motivator for sustained participation in adventure activities (Boudreau et al., 2020). Suki & Suki (2011) claimed that individuals are more motivated to participate in activities that are perceived as more enjoyable, compared to those that are less enjoyable. Numerous studies have investigated the relationship between individual attitudes toward a behavior and their risk perceptions. Many researchers have demonstrated that risk plays a central role in shaping participants' attitudes toward specific sports (Fave et al., 2003;

Pedersen, 1997). The findings have shown a direct predictability of attitude by perceived risk has been established (Han et al., 2019). Given the inherent physical risks associated with extreme sports, which pose a substantial risk of injury and fatality for participants (Florenthal & Shoham, 2001), the degree to which individuals adopt protective measures against such injuries hinges on their subjective assessment of the risk of harm.

Individuals' attitude toward a specific behavior significantly influences their intention to continue or discontinue that behavior (Han et al., 2019). Attitude refers to an individual's overall evaluation, feelings, and beliefs about a specific object, person, or behavior. In this context, it pertains to one's feelings and beliefs about a particular activity, like participating in extreme sports. Attitudes can range from positive to negative, and they are shaped by a variety of factors, including personal experiences, social influences, and cultural norms (Ajzen, 2002). A positive attitude towards the activity can contribute to a higher likelihood of consistently participating in it, while a negative or indifferent attitude may lead to a reduced commitment to continued involvement.

Based on the discussed above, the objective of this study is to investigate the relationship among participants' self-efficacy, perceived enjoyment, perceived risk, and attitudes toward extreme sports on continuous intention to participate in extreme sports. Figure 1 depicts the proposed research model. In the following, we develop the corresponding hypotheses.

H1: Self-efficacy has a positive effect on participants' perception of enjoyment.

H2: Self-efficacy has a negative effect on participants' perception of risk.

H3: Perceived enjoyment has a positive effect on attitude toward participating in extreme sports.

H4: Perceived risk has a negative effect on participants' attitudes toward participating in extreme sports.

H5: Attitude towards participating in extreme sports positively influences participants' continuous intentions.

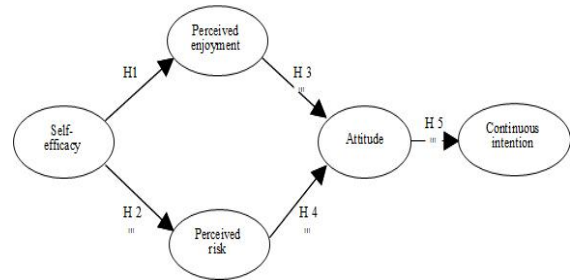


Figure 1. Conceptual model

Methods

Sample and Data Collection Process

The participant of this study are members of Chinese amateur parkour club. To collect data, an online survey was conducted via WeChat, the most widely used social media platform in China (Gan, 2017). A survey link was provided to the amateur parkour club on WeChat to encourage participation from the members. Total 203 responses were collected. Among them, some reported that they did not participate in Parkour. Therefore, 193 responses were accepted as valid, and corresponding data were used for analyses. Participant ages ranged between 18 and 23 years. According to Gilchrist and Wheaton (2011), parkour contains the male-dominated nature. Thus, we chose male as participant in this study. The demographic characteristics of the participants are shown in Table 1.

Table 1. Demographic information

Dimension	Items	Count	Percentage
Gender	Male	193	100
Age	<18	15	7.8
	18-23	97	50.3
	24-29	60	31.1
	30 and >30	21	10.9
Education background	High school and below	39	20.2
	Trade school	39	20.2
	Bachelor	91	47.2
	Master and above	24	12.4
Total		193	100

Measures

Self-efficacy was measured using three items adapted from Hagger et al. (2001). Perceived enjoyment was measured using four adapted from McAuley et al. (1989). Attitude was assessed with three items sourced from Ajzen (1991), while continuance intention was gauged using four items adapted from Hagger et al. (2001). All items were measured on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Meanwhile, perceived risk was measured through three items on a 7-point Likert scale ranging from 1 (extremely low) to 7 (extremely high), as adopted from Deroche et al. (2012).

Psychometric Properties

In order to evaluate the psychometric properties of the items in the study, we adopted confirmatory factor analysis (CFA). The results of CFA are summarized in Table 2. The composite reliability values were employed to assess the reliability. As listed in Table 2, each of the values exceeded 0.795, which is higher than the commonly accepted threshold of 0.70 (Fornell & Larcker, 1981). The results indicate adequate composite reliability.

The assessment of convergent validity for the measurement scales was conducted following two criteria: (1) all indicator factor loadings should be significant and exceed 0.60 (Bagozzi & Yi, 1988), and (2) average variance extracted (AVE) by each construct

Table 2. Items, factor loadings, CR

Construct	Items	Factor loadings	Ave	C.R.
Self-efficacy	You are confident to do Parkour when you don't have time.	0.830	0.684	0.867
	You are confident to do Parkour when you don't have companions.	0.843		
	You are confident to continuously do Parkour when you get injury.	0.808		
Perceived Enjoyment	I really enjoy practicing parkour.	0.862	0.668	0.888
	It's fun to practice parkour.	0.900		
	Practicing parkour is very interesting to me.	0.823		
	I think it's great for me while I'm practicing parkour.	0.660		
Perceived risk	What do you believe is the likelihood that you will get an injury while practicing Parkour?	0.788	0.756	0.902
	How susceptible do you feel you will get an injury while practicing Parkour?	0.917		
	What do you believe is the chance that you will get an injury while practicing Parkour?	0.896		
Attitude	Parkour is a beneficial activity.	0.641	0.566	0.795
	Parkour is a pleasant activity.	0.740		
	Parkour is an enjoyable activity.	0.774		
Continuous Intention	I am willing to spend time to keep practicing Parkour in the future.	0.925	0.857	0.96
	I am willing to keep practicing Parkour in the future.	0.932		
	I intend to keep practicing Parkour in the future.	0.875		
	I will try to keep practicing parkour in the future.	0.969		

Table 3. Construct correlations

	1	2	3	4	5
1. Self-efficacy	0.827^a				
2. Perceived Enjoyment	0.729	0.818^a			
3. Perceived Risk	-0.278	-0.221	0.869^a		
4. Attitude	0.540	0.747	-0.211	0.776^a	
5. Continuous Intention	0.675	0.697	-0.324	0.549	0.926^a

^a Square root of the AVE

should exceed the variance due to measurement error for that construct (i.e., should exceed 0.50). The standardized CFA loadings for all items were significant and exceeded the minimum criteria of 0.70 (Fornell & Larcker, 1981), as shown in Table 2. Furthermore, all AVE values for all constructs exceed the minimum threshold value of 0.50, as shown in Table 2. As a result, results indicate adequate convergent validity. Following the criteria recommended by Fornell & Larcker (1981), discriminant validity was assessed: the square root of the AVE should exceed the correlation shared between the construct and other constructs in the model. In Table 3, the correlations between constructs are presented, with the square root of the AVE on the diagonal. The results provide evidence for the accepted discriminant validity. The measurement model fits the data acceptably, i.e. $\chi^2/df = 1.847$, CFI = 0.965, RMSEA = 0.066.

Results

This study used structural equation modeling (SEM) to examine the proposed hypotheses. The maximum likelihood estimation method was utilized to compute the estimates. The results show that $\chi^2/df=2.079$, CFI=0.954, and RMSEA=0.075, thus proving the acceptability of the model fit.

As hypothesized, self-efficacy exerts a significant positive impact on perceived enjoyment ($\beta=0.73$; $p<0.001$) and a significant negative impact on perceived risk ($\beta=-0.28$; $p<0.001$). Thus, H1 and H2 are supported. In addition, perceived enjoyment demonstrates a positive impact on the attitude toward participating in

parkour ($\beta=0.89$; $p<0.001$). Thus, H3 was supported. On the contrary, the perceived risk does not have a significant impact on the attitude toward participating in parkour ($\beta=-0.08$; $p=0.146$), indicating that H4 is not supported. Finally, the attitude toward behavior exhibits a positive effect on continuance intention ($\beta=0.73$; $p<0.001$), thus providing support for H5. The results of hypotheses are shown in Table 4.

To analyze the relationships between factors influencing the continue participation intention in extreme sports, direct and indirect effects between variables were examined. The results of serial mediation analysis for perceived enjoyment and attitude on self-efficacy and continuous intention are presented in Table 5. The total effect of self-efficacy on continuous intention was significant (95% CI [0.3551, 0.5079]), indicating that participants who perceive higher confidence are more likely to continue participating in Parkour. All three indirect and direct paths were statistically significant. Specifically, the first indirect pathway demonstrated that perceived enjoyment significantly mediated the effect of self-efficacy on continuous intention, with an effect value of 0.0761. The second indirect pathway showed that the relationship between self-efficacy and continuous intention was significantly mediated by attitude toward behavior, with an effect value of 0.0333. The third indirect pathway indicated that both perceived enjoyment and attitude significantly mediated the effect of self-efficacy on continuous intention, with an effect value of 0.0228. In conclusion, these findings suggest that perceived enjoyment and attitude partially mediate the relationship between self-efficacy and continuous

intention.

In addition, the serial mediation analysis results for perceived risk and attitude on self-efficacy and continuous intention are displayed in Table 6. The total effect of self-efficacy on continuous intention was found to be significant (95% CI [0.3551, 0.5079]). However, the direct effect of perceived risk on attitude toward the behavior and the third indirect effect (perceived risk and attitude mediate the effect of self-efficacy on

continuous intention) were not statistically significant. All other remaining indirect and direct paths were statistically significant. The first indirect pathway demonstrated that perceived risk significantly mediated the effect of self-efficacy on continuous intention, with an effect value of 0.1086. The second indirect pathway showed that attitude toward behavior significantly mediated the effect of self-efficacy on continuous intention, with an effect value of 0.0840. However,

Table 4. Hypothesis testing

Hypothesis	β	t-value	Result
H1: Self-efficacy → Perceived Enjoyment	0.735	9.443***	Accepted
H2: Self-efficacy → Perceived Risk	-0.281	-3.527***	Accepted
H3: Perceived Enjoyment → Attitude	0.889	8.932***	Accepted
H4: Perceived Risk → Attitude	-0.078	-1.455	Rejected
H5: Attitude → Continuous Intention	0.729	8.251***	Accepted

*P<.05, **P<.01, ***P<.001.

Table 5. Serial mediation model of perceived enjoyment and attitude between self-efficacy and continuous intention

Pathway	Effect	SE	BootLLCI	BootULCI
Total effect	0.4324	0.0392	0.3551	0.5097
Direct effect	0.3003	0.0434	0.2146	0.3859
SE → PE	0.2752	0.0374	0.2015	0.3490
SE → ATT	0.1347	0.0299	0.0757	0.1938
PE → ATT	0.3352	0.0511	0.2344	0.4360
PE → CI	0.2764	0.0781	0.1224	0.4304
ATT → CI	0.2471	0.1000	0.0497	0.4444
Indirect effects				
Total indirect effects	0.1321	0.0376	0.0634	0.2118
SE → PE → CI	0.0761	0.0274	0.0254	0.1333
SE → ATT → CI	0.0333	0.0208	0.0005	0.0822
SE → PE → ATT → CI	0.0228	0.0154	0.0003	0.0595

Table 6. Serial mediation model of perceived risk and attitude between self-efficacy and continuous intention

Pathway	Effect	SE	BootLLCI	BootULCI
Total effect	0.4324	0.0392	0.3551	0.5097
Direct effect	0.3238	0.0432	0.2387	0.4090
SE → PR	-0.2687	0.0797	-0.4258	-0.1115
SE → ATT	0.2196	0.0300	0.1604	0.2788
PR → ATT	-0.0274	0.0265	-0.0797	0.0248
PR → CI	-0.0809	0.0337	-0.1475	-0.0143
ATT → CI	0.3827	0.0922	0.2009	0.5645
Indirect effects				
Total indirect effects	0.1086	0.0367	0.0447	0.1895
SE → PR → CI	0.0217	0.0099	0.0056	0.0440
SE → ATT → CI	0.0840	0.0348	0.0245	0.1621
SE → PR → ATT → CI	0.0028	0.0031	-0.0015	0.0103

perceived risk and attitude were found to insignificantly mediate the effect of self-efficacy on continuous intention, with a confidence interval that included 0.

Discussion

The primary objective of this study was to investigate the continuous intention of participating in extreme sports. Our investigation sought to assess the relevance of psychological factors unique to individuals involved in extreme sports, thereby shaping their distinctive characteristics. The results of the study suggest that individuals' attitude toward engaging in extreme sports is the primary factor influencing their continuous intention to participate. This implies that individuals who experience positive emotions and feelings during extreme sports are more likely to persist in their involvement. These findings align with the findings of Cho et al.'s (2020) research, which indicates that individuals' attitudes toward a behavior have a strong positive impact on their willingness to continue with that behavior.

The results also indicate that perceived enjoyment plays a crucial role in generating positive emotions. Participants who experience pleasure from engaging in extreme sports tend to exhibit a more positive attitude. This finding is consistent with the findings of Perez-Aranda et al. (2021) and Jeon et al. (2021). Surprisingly, the perceived risk does not exert a significant influence on individuals' attitudes toward engaging in extreme sports. This finding contradicts the perspective of Quintal et al. (2010), who posited that perceived risk negatively affects attitudes toward behavior within the tourism context. The unexpected result could be explained by the notion that experienced participants in extreme sports are already aware of their inherent dangers. Consequently, they have developed a certain mindset to cope with these risks. Another reason may contribute to the gender-related characteristic of this study. Men have been found to exhibit lower risk perception compared to women across a wide range of

domains (Garbarino & Strahilevitz, 2004). Therefore, experienced male participants' attitude toward the sport will not be affected by perception of risk. Finally, the findings of this study suggest that those who have higher levels of self-efficacy in extreme sports are more likely to derive greater enjoyment from participating in the activity and perceive a reduced sense of danger. The findings are consistent with Hu et al. (2007) and Baretta et al. (2017).

The results of this study collectively shed light on the unique psychological perceptions of individuals engaged in extreme sports, providing insights into their decision-making process to continue participating in these activities. By exploring the lived experiences of extreme sports participants, the study contributes to a deeper understanding of the factors driving their continuous involvement in these activities.

Theoretical Implications

In this study, we aim to understand the continuous intention for participation among extreme sports enthusiasts. To achieve this, a model was developed, integrating potential influential factors that impact the behavior of individuals engaging in extreme sports. This model draws upon the theoretical framework of the Theory of Planned Behavior. The proposed model's distinctiveness stems from its integration of constructs that have been firmly established in diverse research contexts but are comparatively innovative within the realm of extreme sports study.

In addition to examining the factors that influence participation in extreme sports from both individual and sport-oriented perspectives, the primary contribution of the proposed model is its incorporation of psychological variables that explain important traits of individuals actively involved in extreme sports. Through the integration of these groundbreaking elements, the model not only deepens our understanding of the factors driving continuous participation in extreme sports but also offers valuable insights for future research in this

field.

Prior investigations into extreme sports have often been constrained in scope, frequently neglecting the significant behavioral drivers of individuals immersed in edgework (Brymer & Mackenzie, 2017). Furthermore, existing studies, driven by theoretical perspective, have inadequately captured the lived experiences of extreme sports participants. Thus, our contribution extends beyond these limitations by presenting a theoretical viewpoint, constructing psychological drivers within a cohesive model, and demonstrating their pivotal role as predictors of individuals' intention to continue in participating in extreme sports. In doing so, our research model not only addresses existing gaps but also transcends the confines of prior studies, underscoring the vital influence of psychology on the continuous engagement of individuals in extreme sports.

Practical Implications

The results of this study suggest that those with high self-efficacy tend to experience more enjoyment and perceive less risk when participating in extreme sports. These findings indicate that when individuals have more confidence in their ability to handle the difficulties that come with these activities, they feel more pleasure and see them as less risky. Hence, managers and organizers of extreme sports must consider the skills and capabilities of participants and adjust the difficulty level of the activity accordingly to alleviate participants' fears and concerns throughout their involvement. Managers and organizers can improve participants' self-efficacy and promote ongoing involvement in extreme sports by offering suitable training, advice, and support. This will contribute to a more positive and joyful experience in extreme sports.

The findings of this study further emphasize that individuals who experience pleasure are more likely to develop a favorable attitude toward participation. This has important implications for organizers and managers

in the field of extreme sports. Creating an enjoyable experience for participants in extreme sports can leave a lasting favorable impression. Hence, organizers and managers of extreme sports must prioritize the augmentation of the participants' enjoyment during the activities. To achieve this, it is necessary to develop extreme sports activities that incorporate both competitive and cooperative elements, as research has shown that this combination significantly enhances players' sense of satisfaction (Lee et al., 2013). Moreover, offering individuals chances to push their limits and acquire complex activities might not only enhance their pleasure but also elicit favorable emotions among participants. By incorporating these elements, event organizers and management can cultivate a more enjoyable and optimistic atmosphere for individuals participating in extreme sports.

Limitations and Future Research

The psychological variables examined in this study are well-established in sports contexts. However, for a more comprehensive understanding of the continuous participation intention of extreme sports participants, future studies should explore additional factors such as participants' personality traits, motives for participation, duration of participation, gender, and so on. In particular, the exclusion of female participants, which is one of the major limitations of this study, should be considered in future studies. That is, the extreme sports chosen for this study are primarily male-dominated, posing challenges in recruiting an ample number of female participants for a thorough investigation. Consequently, the findings of this study may have limitations in their generalization to the entire population of extreme sports enthusiasts. In the future study, conducting studies that include both males and females will likely yield more meaningful results regarding the continuous participation intentions of extreme sports participants.

Author Contributions

Study conception and design: ChiLin Yu, Kyungro Chang, Taehee Kim

Data collection: ChiLin Yu, Cheng Wang

Analysis and interpretation of results: ChiLin Yu, Taehee Kim

Draft manuscript preparation: ChiLin Yu, Kyungro Chang, Taehee Kim, Cheng Wang

Revision of the manuscript: Kyungro Chang, Taehee Kim

Study supervision: Kyungro Chang, Taehee Kim

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