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Flow experience and behavioral intention in recreational flights: The mediating role of satisfaction, recollection and storytelling

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Abstract

Flow experience in recreational flights not only can have positive psychological effects and individual satisfaction, but recollection and storytelling of this experience can be considered a marketing tool for tourism destinations. This study aims to examine the influence of experience gained from recreational flights on behavioral intentions of flight site users and the mediating role of satisfaction، recollection and storytelling. Employing a quantitative approach and gathering data from 279 respondents at two prominent recreational flight sites in Iran, the analysis conducted through Partial Least Squares (PLS) discovered a significant impact of flow experience on satisfaction, recollection, storytelling, and behavioral intention. Moreover, it was found that satisfaction, recollection, and storytelling mediate the connection between flow experience and behavioral intention.

Keywords: *Flow experience, recollection, storytelling, satisfaction, behavioral intention, recreational flight*

Introduction

An increasingly popular and exciting activity in tourist destinations is adventure tourism which has rapidly been developed globally due to its significant economic, cultural and environmental values for different stakeholders (Janowski et al., 2021). The adventure tourism market was valued at 0.65 billion USD in 2019, and anticipated to grow significantly, reaching an estimated 2.02 billion USD by the year 2030 (Statista, 2022). Investing in and providing sufficient infrastructure and necessary facilities, managing safety and security issues, and engaging in promotion and marketing activities are crucial to the success of destinations as these factors influence tourists' experience. Ensuring participants' positive experiences is a critical consideration in designing and

managing adventure tourist experiences, particularly those in which the "flow experience" concept is involved (Wu & Liang, 2011). Similarly, recreational flights such as paragliding contribute to tourists' memorable experiences and revisit intentions (Ayazlar et al., 2018).

Flow experience reflects a mixture of hedonic and utilitarian features that lead to positive outcomes (Kim & Thapa, 2018; Wu & Liang, 2011), and it has garnered significant interest among both scholars and practitioners as a constructive psychological framework for comprehending highly favorable experiences (deMatos et al., 2021). In the context of adventure tourism, flow experience is a suitable concept for describing why individuals become involved in such activity (Ayazlar & Yüksel, 2018), and what outcomes they want to receive (Kim & Thapa, 2018). For instance, Cater et al. (2021) found a causal association between flow experience and satisfaction in scuba diving, and Ayazlar and Yüksel (2018) highlighted that flow experience positively impacts the life satisfaction of paragliders.

Nonetheless, these studies did not probe the effect of flow experience on visitors' behavioral intentions. This gap in research provided the impetus to explore this crucial relationship within the context of paragliding. In the current study, it is argued that although the main elements of flow experience remain similar across different adventure tourism activities, there can be differences in how flow is experienced in recreational flights compared to other adventure tourism activities, because recreational flights, such as paragliding and ballooning, often provide a unique sensory experience. The feeling of floating through the air, the panoramic views, and the gentle movements of the aircraft can contribute to heightened sensory stimulation, adding to the overall flow experience.

Furthermore, the fascinating, extraordinary and memorable experiences would enhance storytelling intention of adventure tourists (Zhong et al., 2017). Storytelling revolves around the narratives individuals share about experiences they have explored (Lund et al., 2020), it strengthens the ties between tourists, host communities, and tourism products, and positively impacts tourists' behavioral intention (Lee & Wu, 2017). Past research has demonstrated that incorporating storytelling into marketing strategies can have a positive effect on customer attitudes, perceptions, intentions, and overall satisfaction (Kim et al., 2020).

Although the relationships between storytelling, flow experience and behavioral intentions have partially been discussed in literature (Cater et al., 2021; Lee & Wu, 2017; Manthiou et al., 2017), the mediation roles of satisfaction, recollection and storytelling have not been investigated in

recreational and leisure flights. For example, flow experience, described as a state of thorough immersion, can have a significant effect on behavioral intention. When individuals are involved in physical activities that elicit flow, they experience a sense of enjoyment, intrinsic motivation, and a loss of self-consciousness (Nakamura & Csikszentmihalyi, 2009). This heightened state of concentration and enjoyment can lead to positive recollections of the flow experience, which, in turn, affect behavioral intentions.

Similarly, flow experience, mediated by satisfaction, may influence behavioral intentions through positive reinforcement, enhanced perceived value, increased sense of competence, and self-efficacy, improved emotional well-being, and the potential for social influence. Finally, when mediated by storytelling, flow experience can have a profound influence on behavioral intention. Storytelling is a powerful means of communication that engages individuals and evokes emotions. The purpose of this study is to explore how recreational flight experience impacts visitors' behavioral intentions, mediated by satisfaction, recollection, and storytelling. Contributing to consumer behavior, psychology, and adventure tourism literature, it adopts Csikszentmihalyi's flow theory (Csikszentmihalyi, 1975). This theory defines a state of complete immersion, characterized by intense focus, timelessness, and enjoyment. By applying this theory to recreational flights like paragliding, this study delves into the immersive experiences individuals undergo. A comprehensive framework provides insight into optimal visitor experiences, highlighting factors such as engagement and time perception (Ellis et al., 2019; Mosing et al., 2012).

Literature review and hypothesis development

Flow experience in adventure tourism

Flow is defined as a subjective state of being involved during an activity in which someone is fully absorbed or immersed, and is linked with pleasure, enjoyment and loss of control (Ellis et al., 2019; Mosing et al., 2012; Ullén et al., 2012). Csikszentmihalyi introduced this concept into leisure and recreation literature, defining it as "the holistic sensation that people feel when they act with total involvement" (Csikszentmihalyi, 1975, p. 36). His pioneering work from the 1970s to 1990s influenced academic research on flow (Aykol et al., 2017). Flow is a critical element in influencing consumer behavior, particularly in tourism and leisure activities (Frochot et al., 2017; Tasci & Milman, 2019), and has been a subject of extensive investigation within adventure tourism. In this

context, flow experience is typically characterized by four key dimensions: challenge-skill balance, concentration, a sense of control, and sensation seeking (Boudreau et al., 2020). These dimensions are recurrent features in activities that entail a notable level of challenge and engagement.

Flow has been studied in various adventure tourism activities, such as white-water rafting (Wu & Liang, 2011), scuba diving (Cater et al., 2021), mountaineering (Pomfret, 2006), and paragliding (Ayazlar & Yüksel, 2018). A study by Tsaur et al. (2013) discovered that the transcendental nature of high-altitude mountaineering is an essential precursor to the flow experience and that this experience makes climbers happy. In a similar vein, deMatos et al. (2021) investigated the fundamental components of the flow framework, encompassing its catalysts, mechanisms, and resultant effects, elucidating their function as a mechanism for enhancing tourists' overall experience. Their research findings indicate that the attributes of tourists themselves, favorable and unfavorable consequences linked to the flow experience, and related constructs like immersion and cognitive stimulation, have substantial influence in shaping their degree of satisfaction.

Wu and Liang (2011) noted that flow and the flow experience are different, identifying the latter with control, focusing on time distortion, creating and maintaining high levels of positive emotions and satisfaction in adventurous activities. The aspect of control encompasses the equilibrium between the requisite skills and the challenges inherent in the action, consequently yielding positive feedback in the form of heightened satisfaction. Focus serves as a conduit that directly links thought with action, a principle expounded upon by scholars in the field (Heo et al., 2010), while time distortion refers to a situation when someone loses sense of time or experiences changed perspectives of time (Im & Varma, 2018). The discourse surrounding the flow experience and its associated dimensions has been a prominent topic within the domain of adventure tourism literature. However, this study aims to provide a deeper understanding of the complex connections between flow experience and tourists' behavioral intentions by introducing recollection, satisfaction, and storytelling as critical mediating factors in this dynamic relationship.

Flow experience and recollection

Recollection is an important memory-based concept that refers to how individuals recall a particular experience and create a powerful and lasting memory in their minds (Tung & Ritchie, 2011). Ochsner (2000) defined recollection as "a process that brings back details specific to a given

episode" (p.243). Memorable experiences form integral parts of autobiographical memories, as tourists tend to recall exceptional experiences more readily (Kim, 2010). Strong positive or negative emotions are a catalyst for consumers' mental memories, with emotions considered the cause and memory the result (Talarico & Rubin, 2003).

In their examination of literature, Manthiou et al. (2017) observed a noteworthy impact of positive emotion on recollection within the luxury cruise sector, while Kang et al. (2016) highlighted that four measurements of the cruise experience (e.g., education, entertainment, aesthetics, and escapism) contributed significantly to cruisers' recollection, subsequently bolstering their behavioral intentions. These insights provide valuable guidance for stakeholders in adventure tourism, suggesting that crafting experiences which incorporate these elements can lead to more impactful and lasting memories for tourists. Moreover, Loureiro (2014) notes that recollection of positive travel experience significantly affects behavioral intention, emphasizing that the lasting memory of a positive travel encounter holds substantial sway over an individual's inclination to engage in future behaviors related to travel. This suggests that creating and fostering positive and memorable travel experiences can have a direct and lasting impact on tourists' intentions to revisit or engage in further travel-related activities. Therefore:

H1: Flow experience has a positive impact on recollection.

H2: Recollection has a positive impact on behavioral intention.

Flow experience and satisfaction

From a cognitive-emotional perspective, satisfaction is a multidimensional concept that includes psychological and emotional factors (Andrade et al., 2021), described as being derived from corresponding needs or motives being met (Tian-Cole & Cromption, 2003). Tourist satisfaction is an emotional state, encompassing a combination of expectations, perceived outcomes, and recollections stemming from a tourist's experience (Chen & Chen, 2010). Satisfaction pertains to the perceived variance between prior expectations and the actual performance experienced after consumption.

One of the most critical outcomes of satisfaction is its impact on behavioral intentions such as loyalty, revisit intention, and WOM recommendation, which has been explored in previous studies

(Chen & Tsai, 2007; Kim & Thapa, 2018; Wu & Liang, 2011). From the positive psychological perspective, it is argued that flow experience can be a guide for the physical and mental development of individuals, and will lead to greater satisfaction because it reflects a mixture of hedonistic and eudemonic characteristics that can also contribute to life satisfaction (Waterman, 1993). Numerous studies have confirmed and demonstrated the relationship between tourist experience and satisfaction (Cater et al., 2021; Song et al., 2015; Wu & Liang, 2011; Zhong et al., 2017).

In adventure tourism, particularly within the context of paragliding, limited investigations have discovered the connection between flow experience and satisfaction (Ayazlar & Yüksel, 2018;Wu & Liang, 2011). For example, Wu and Liang (2011) found that flow experience positively affects satisfaction among white-water rafting adventurists, while Ayazlar and Yukselleading (2018) explored that flow experience positively affects paragliders' satisfaction, which, in turn, influences life satisfaction. These studies represent pioneering efforts to shed light on the significant relationship between the state of flow experienced during adventure activities and the resulting level of satisfaction reported by participants (Cater et al., 2021). By examining this association, the above-mentioned studies contribute to a deeper understanding of the factors that contribute to overall satisfaction in the context of adventure tourism and tourists' revisit intentions (Song et al., 2015; Zhong et al., 2017), particularly within the realm of paragliding experiences. Thus, the following hypotheses are proposed:

H3: Flow experience has a positive impact on satisfaction.

H4: Satisfaction has a positive impact on behavioral intention.

Storytelling, flow experience and behavioral intention

Storytelling serves as a medium for storytellers and listeners to share and integrate their unique experiences through verbal expression and gestures, ultimately influencing the experiences of others (Bassano et al., 2019; Kim & Hall, 2020; Pera, 2017). Online reviews generated by tourists are recognized as a form of storytelling (Pera, 2017). The act of perusing such online reviews proves instrumental in furnishing insights about a destination, thereby supporting the decision-making process of tourists (Black & Kelley, 2009). Storytelling serves as a dynamic behavior

through which travelers actively engage and co-create their own unique experiences, thereby enhancing the perceived value of services and interactions within the tourism context (Lund et al., 2018).

According to Minazzi (2015), research in tourism storytelling primarily centers on two domains. The first is a managerial perspective, which investigates how narratives can be utilized by destinations and tourism entities to enhance marketing strategies and refine branding efforts. The second, a customer-oriented approach, explores the impact of stories shared by fellow travelers on the decision-making procedure of visitors. The managerial approach refers to a destination or operator's planned practice to tell and promote novel stories that indicate culture, history, and value to reinforce positive emotional bonds between tourists and destinations (Gravili & Rosato, 2015). According to Pera (2017), in terms of customer access, travelers will create value for themselves, primarily by providing opinions and reviews of destinations and travel service companies to members of their communities, which in turn stimulate potential tourists' purchase behavior (Howison et al., 2017).

Li and Liu (2020) examined how empathy and persuasive storytelling elements affect viewers' responses, understanding of tourism, and inclination to travel. Their findings show a significant shift in tourists' attitudes and willingness to travel after watching micro storytelling movies, emphasizing the crucial role of storytelling in shaping tourists' perspectives and intentions. Similarly, Cater et al. (2021) noted that the flow experience significantly influences tourists' storytelling inclinations, regardless of their expertise in activities like scuba diving, with satisfaction acting as a mediator.

Zhong et al. (2017) provided empirical evidence for the affirmative impact of memorable experiences (MTE) on storytelling behavior indicating that, in comparison to satisfaction, MTE emerges as a more robust predictor of affective commitment. Past research demonstrated that when individuals are in a flow state, their concentration level is intensified, meaning they are most likely to remember the details of sensations and emotions attributed to the experience (Cater et al., 2021; Ghaderi et al., 2023). These vibrant memories become the building blocks for compelling and engaging stories. Overall, this relationship has not been measured in recreational flight experience such as paragliding; hence, further investigation is needed to strengthen this relationship. Thus, the following hypotheses are proposed:

H5: The flow experience has a positive impact on the storytelling.

H6: Storytelling has a positive impact on behavioral intention.

Behavioral intentions

Behavioral intention is characterized by the extent to which an individual possesses a deliberate and conscious intention to either partake or abstain from a specific behavior in the future (Warshaw & Davis, 1985), and it can be considered an indicator of actual consumer behavior (Triantafillidou & Petala, 2016) and a multifaceted construct that includes two factors: intend to repurchase and to recommend the tourism service (del Bosque & San Martín, 2008; Zhong et al., 2017). A comprehensive grasp of the antecedents and consequences of a tourist's behavioral intention is necessary for the success of tourism providers, as behavioral intention can influence the future actions of existing consumers, and also influence the behavior of other potential customers through word-of-mouth recommendations (Bendall-Lyon & Powers, 2004).

Most studies have determined satisfaction, perceived quality, and value variables as potential drivers of tourism behavioral intentions (Chen & Tsai, 2007). The predominant focus has been on investigating the indirect influence of experience on behavioral intentions, often mediated by factors like satisfaction (Cater et al., 2021; Kao et al., 2008), delight and recollection (Jeon et al., 2020), arousal and memory (Loureiro, 2014), and nostalgia intensity (Triantafillidou & Siomkos, 2013). Triantafillidou and Petala (2016) investigated the impacts of various dimensions of experience on behavioral intentions within the context of water-based activities. Their findings revealed that experiential dimensions such as hedonism, escapism, and socialization positively influenced both tourists' satisfaction and their behavioral intentions. In contrast, it was observed that flow experience exhibited a negative correlation with the behavioral intentions of sea adventure tourists. The direct and indirect impact of flow experience on revisit intention and recommending a specific site to others have been overlooked in research; hence, the current study explores the direct and indirect impact of flow experience, satisfaction, and recollection on tourists' behavioral intention. Therefore, the following hypotheses are proposed:

H7: The flow experience has a positive impact on the behavioral intention.

H8: Recollection mediates the relationship between flow experience and behavioral intentions.

H9: Satisfaction mediates the relationship between flow experience and behavioral intentions.
H10: Storytelling mediates the relationship between flow experience and behavioral intentions.

[Insert Fig 1 here]

Methodology

Research setting

In order to conduct this research, two recreational flight sites in Iran, Ramian and Koh Khalil, were selected for data collection. The Ramian flight site is located in Golestan province and equipped with artificial grass at an altitude of 430 meters above the sea level, surrounded by eye-catching nature. The existence of adequate infrastructure and facilities for year-round operation attracts many adventure lovers for educational, individual, and recreational flights (Golestan MCTH, 2023). Mount Khalil is located in the Silvana region in West Azerbaijan province 30 km away from Urmia. Mount Khalil Urmia, at an altitude of 1,400 meters, is on the border of Iran and Turkey (Irna, 2018).

These sites were selected as study areas because they are popular destinations for paragliding with tourists and local residents seeking to experience adventure activities. The presence of artificial grass and year-round operation capabilities indicate a commitment to providing a safe and accessible environment for paragliders. The chosen sites offer a combination of popularity, diverse geography, infrastructure, accessibility, and cultural significance that make them highly suitable for conducting research on recreational flight activities.

Measurement

The instrument of measurement in this study was a questionnaire survey. For measuring the flow experience, three variables (control, focus attention, and time distortion) were selected, using 9-items derived from Cater et al.(2021), and Wu and Liang (2011). Recollection was measured using three items based on Manthiou et al.'s (2017) study. Three questions were used from the research of Lee et al. (2007) and Cater et al. (2021) to measure satisfaction. To evaluate the behavioral intention, three items were used from Jeon et al. (2020), Kim et al. (2020), and Ali et al. (2016)

studies, and to measure storytelling, four questions were used from Manthiou et al.(2017) and Zhong et al. (2017).

All questionnaire items were assessed using a 5-point Likert-type scale ranging from strongly disagree (1) to strongly agree (5). Since the respondents were Iranians, the initial questionnaire underwent a rigorous translation process, first into Persian by two proficient English language translators and a tourism expert. Subsequently, it was thoroughly reviewed and discussed with researchers using the forward-backward method to ensure the accuracy and fidelity of the translated version (Satar et al., 2023). To ensure the content validity of the questionnaire, the perspectives of nine experts in the field of tourism were sought. The assessment involved employing established metrics including the Content Validity Ratio (CVR) as proposed by Lawshe (1975), along with the Content Validity Index (CVI) outlined by Waltz and Bausell (1983). These measures were instrumental in validating the comprehensiveness and relevance of the questionnaire's content.

The questionnaire's reliability was evaluated through a pilot study involving 30 participants. Utilizing Cronbach's alpha correlation coefficient, it was determined that all variables achieved an alpha coefficient exceeding 0.7, indicating strong internal consistency and confirming the questionnaire's reliability. The validity and reliability of the structural components within the model were re-assessed and substantiated by criteria such as Average Variance Extracted (AVE), Heterotrait-Monotrait Ratio of Correlations (HTMT), and Construct Reliability (CR) (Table 2). These assessments reinforced the robustness of the questionnaire's constructs and their interrelationships within the model.

Data collection and sample

During the summer of 2020, a field study was carried out in the flight zones of Ramian and West Azerbaijan, employing a convenient sampling method. The statistical population for this study included all visitors who utilized these two designated flight zones during the specified timeframe. These flight zones were chosen due to their significance in recreational flying activities, offering a diverse range of experiences for participants. Through this study, researchers aimed to gain insights into the behaviors and preferences of individuals engaging in recreational flight activities

in these specific regions. G*Power software was used to determine the required sample size. According to Erdfelder et al. (2009) on determining sample size with this software, and taking into account the maximum number of arrows pointing at a construct and level of significance of 1%, test power of 0.80 and effect size of 0.1, 279 samples represented the minimum sample size for the research.

The researchers employed a dual approach for questionnaire distribution, utilizing both online and in-person methods. Online questionnaires were disseminated through communication channels (Instagram, WhatsApp and Telegram channels) associated with the designated flight sites. Prospective respondents were invited to participate by accessing and completing the survey via these digital platforms. This approach ensured a broad reach and diverse pool of participants for the study. Incorporating convenience sampling during holidays was a strategic choice that aligns with capturing the sentiments and experiences of the target population. Additionally, leveraging popular social media platforms such as Telegram and Instagram channels dedicated to this field offers a dynamic and contemporary approach to reaching a broad audience (Ghaderi et al., 2023). Six students were involved in distributing the questionnaires among those who were present for flights at these flight sites. Approximately 320 questionnaires were distributed and 290 were completed and collected (90.6% response rate). After deleting incomplete questionnaires and those which had outlier data, 279 questionnaires were confirmed for analysis.

Data analysis

The primary data collected from the questionnaires underwent comprehensive analysis utilizing descriptive statistics including frequency, frequency percentage, mean, and standard deviation, employing SPSS software. Furthermore, Partial Least Squares Structural Equation Modeling (PLS-SEM which enables the examination of a theoretical framework from a predictive standpoint (Ghasemy et al., 2020) was used to scrutinize the proposed relationships within the model. . By utilizing this software and the PLS predict method, it was possible to assess the theoretical framework from a predictive perspective, enhancing the depth of analysis (Shmueli et al., 2019)and given the lack of normalization of data distribution, it is possible to solve models with fewer items and fewer samples than other existing software (Hair et al., 2011).

Results

Respondents' profile

Demographic characteristics show that a significant number of respondents were between 20 and 30 years old (44.1%), with the majority male (n=217), and 80% of the sample were married. Many (n=122, 43.7%) had bachelor's degrees, while 39.4% were Masters or PhD holders (it is recognized that users of paragliding sites are not likely to be typical of the Iranian population as a whole, and could be expected to be younger, better educated, and more affluent than the population at large similar to the case in other adventure tourism activities). In relation to flight experience, 55.2% of the respondents had less than one year of experience.

Assessment of the Measurement Model

A comprehensive assessment of the measurement model's reliability and validity indices was conducted. Three key criteria, factor load coefficients, Cronbach's alpha, composite reliability, and ρA, were employed to measure reliability. It was imperative that factor loadings surpassed the critical threshold of 0.7 (Ghasemy et al., 2020). As depicted in Table 1, all questions demonstrated factor loadings well above this threshold, affirming the robustness of the model. Furthermore, Table 1 revealed that both composite reliability and Cronbach's alpha coefficients for all variables exceeded the 0.7 benchmark. This confirms that the measurement model exhibits acceptable reliability.

The validity of the model was evaluated using measures of convergent and discriminant validity. Average Variance Extracted (AVE) was employed to evaluate convergent validity, while Heterotrait-Monotrait (HTMT) ratio was utilized to scrutinize discriminant validity. These assessments provided crucial insights into the robustness and appropriateness of the model under examination. To assess convergent validity, it is essential for the Average Variance Extracted (AVE) to surpass the threshold of 0.5 (Ghasemy et al., 2020). The findings presented in Table 1 indicate that all conditions for convergent validity have been met, affirming the presence of strong convergent validity within the measurement model.

[Insert Table 1 here]

Discriminant validity was measured using the Heterotrait–Monotrait (HTMT) index. In the PLS software, obtaining the HTMT index necessitates conducting the bootstrapping procedure in its entirety. An HTMT value falling within the range of 0.85 to 0.9 is considered acceptable. When the values are below 0.9, it confirms the presence of discriminant validity (Ghasemy et al., 2020).

[Insert Table 2 here]

The values observed in Table 2, all falling below 0.9, affirm the presence of discriminant validity within the model. This substantiates the validity of the measurement model.

Assessment of the Structural Model

To evaluate the Criteria of the structural model, the significant T-value, coefficient of determination (R^2) and effect size (F^2) values were used. The significance of T-values can be verified at the 95% level, when the β coefficients of each hypothesis are confirmed outside the range of ±1.96 and, and when the coefficients exceed 2.58, they attain a confirmation level of 99%. As shown in Table 3, the first, second, third, fifth, sixth, and seventh hypotheses were confirmed, demonstrating significant path coefficients at the 99% confidence level. Additionally, the fourth hypothesis garnered support at a confidence level of 95%. Hypotheses 8, 9 and 10 investigated the mediating role of satisfaction, recollection and storytelling and recollection, and storytelling variables both had a mediating role at 99% significance level, while satisfaction had a mediating role at the 95% significance level in the relationship between flow experience and behavioral intentions (Table 3).

The second indicator for measuring the fit of the structural model is the coefficient of determination (R^2). Chin (1998) considered R^2 as the most critical test indicator of a model with three values of 0.19, 0.33, 0.67 as weak, medium, and strong. In this research, R^2 for behavioral intention was 0.35, indicating that 35% of changes in the behavioral intention variable are based on flow experience, recollection, storytelling, and satisfaction. Furthermore, the R^2 value of recollection, storytelling, and satisfaction was 0.14. Given that only the flow experience contributes to the prediction of these variables, this prediction is estimated to be of medium strength. In the third step, the f^2 value was used to measure the extent to which the R^2 value corresponds to each of the independent variables. This value, proposed by Cohen (1988), quantifies the strength of relationships within model structures. Values of 0.02, 0.15, and 0.35 signify low, medium, and high effect, respectively. The results showed that f^2 variables of flow experience, recollection, storytelling, and satisfaction were 0.04, 0.02, 0.16, and 0.01. This indicates that the storytelling variable has the highest contribution in predicting tourists' behavioral intentions.

[Insert Table 3 here]

The PLS $_{predict}$ algorithm was used to measure the model's out-of-sample predictive power (Shmueli et al., 2019). The primary dependent variable was evaluated by the PLS with ten folds and ten repetitions and focused on behavioral intentions. In PLS, Q2 predict value is essential and must be above zero ($Q2_{predict} > 0$). The root means square error (RMSE), the statistics of the PLS model and the linear model (LM) also were compared. If PLS-SEM < LM, the model has high predictive power (Shmueli et al., 2019). The results showed that all Q2 predicted values were above zero. For all the items in the PLS results section, the RMSE prediction errors were smaller than the RMSE values under the LM results, which indicate the predictive power outside the robust model sample.

Discussion and Conclusions

While the significance of flow experience and its effect on behavioral intention has been discussed in previous studies (Ayazlar & Yüksel, 2018; ben Youssef et al., 2019; Kim et al., 2020), little research has investigated the mediating role of satisfaction, recollection and storytelling in adventure tourism, especially recreational flights. In this study, besides the direct impact of flow experience on satisfaction, recollection and storytelling, the indirect impact of flow experience on behavioral intention through these variables was also explored. The results yielded significant insights as discussed below.

The positive impact of flow experience on recollection suggests that tourists recall flight sites as if they were flying again. Manthiou et al. (2017) similarly found that positive emotions significantly affected recollection in luxury cruise experiences, despite their differences from paragliding. Second, this study revealed a positive and significant impact of recollection on behavioral intentions, indicating that visitors' positive memories of flight sites drive them to return and/or recommend them. This highlights recollection's crucial role in revisit intention, aligning with Kang et al. (2016) and Manthiou et al. (2017), who found similar effects in cruise experiences. Additionally, the findings suggest that satisfaction significantly impacts behavioral intentions, consistent with studies by Cater et al. (2021), Kang et al. (2016), Kim and Thapa (2018), and Talebpour et al. (2017). This relationship also affirmed in the context of creative tourism (Ali et al., 2016). Specifically, the finding reveals that visitors' satisfaction with their flight experience positively influences their behavioral intentions.

Third, the significant and positive impact of flow experience on storytelling suggests that individuals with a heightened flow experience are more inclined to engage in storytelling behavior. It also shows that the experience of respondents motivated them to share stories about their expertise through social media in the form of movies, photos, and stories. Overall, the finding revealed that tourists with memorable and extraordinary memories of their paragliding experience were more likely to engage in storytelling behavior. Furthermore, the significant and positive influence of storytelling on behavioral intention, which is consistent with Ghaderi et al. (2023), and Manthiou et al. (2017), shows that tourists' storytelling of their flights positively and significantly affects their behavioral intentions. In other words, when tourists are satisfied with their flight experiences, they like to talk about their experience with others. On the contrary, negative experiences contribute to unpleasant storytelling (Kim & Youn, 2017).

Fourth, the positive and significant effect of flow experience on behavioral intentions deviates from the findings of Triantafillidou and Petala (2016), who indicated a negative relationship between flow experience and the behavioral intentions of sea adventure tourists. This incongruence may be attributed to the fundamental principles of flow theory, where individuals tend to experience positive emotions when engaged in activities that are both highly challenging and for which they possess a high level of skill (Haworth & Evans, 1995). In this research, a balanced alignment between the skills of paragliding participants and the challenge presented by the activity was found. This equilibrium contributed to positive experiences, making it more probable participants would recommend and revisit the activity in the near future.

Finally, the mediating role of recollection between flow experience and behavioral intentions shows another indirect effect, namely that when an individual's experience of flight sites is positive, that recollection can positively affect behavioral intentions for re-appearance (Jeon et al., 2020) at the flight site. The relationship between recollection and behavioral intention was confirmed by Kang et al. (2016), and Manthiou et al. (2017), but the indirect effect of recollection on the relationship between flow and behavioral intention was not studied, thus this study sheds light on this issue. Furthermore, the mediating role of satisfaction and storytelling between flow experience and behavioral intentions reveals an additional indirect effect in individuals' experiences. A positive outcome in this regard would lead to the satisfaction of tourists. This path can also influence behavioral intentions to re-attend the flight site.

Theoretical implications

The findings of this study provide theoretical contributions to the adventure tourism and flow experience literature through the investigation of the direct and indirect effects of flow experience on visitors' behavioral intentions within the context of paragliding. While most researchers examined the direct effects of mediating variables on behavioral intentions (e.g., Cater et al., 2021; Kao et al., 2008), this study investigated both direct and indirect effects, focusing on mediating variables such as recollection, satisfaction and storytelling in relationship between flow experience and behavioral intention. Such indirect roles, storytelling in particular, have not been empirically investigated in the adventure paragliding literature.

This study identified flow experience as the primary predictor of recollection, indicating that the intensity and quality of flow encountered during activities significantly influence subsequent recall (Karasakal & Albayrak, 2022), which also impacts storytelling. This extends flow theory by suggesting that flow quality predicts recollection and thus motivations for positive storytelling. These findings contribute to tourist behavior, psychology, and adventure tourism literature by exploring the mediating roles of satisfaction, recollection, and storytelling. Additionally, the findings offer insights into the empirical application of Csikszentmihalyi's Flow Theory in adventure tourism, highlighting the importance of balancing perceived challenge and required skills for positive behavioral intentions.

Practical implications

The current study has several practical implications. First, the results revealed that understanding the subjective nature of flow experience and mapping the consequences are critical for adventure tourism destination marketers and researchers wishing to satisfy tourists by providing an enjoyable adventure experience. Creating memorable moments should be a focal strategy for Destination Management Organizations (DMOs) as such moments create unforgettable experiences that contribute to future positive behaviors, including storytelling, revisiting, and recommending to others. Second, the findings suggest that paragliding sites, as adventure tourism destinations, should focus on providing memorable experience for adventure lovers to allow them to become more skilled and competitive. To achieve this, besides providing adequate facilities and equipment

for visitor satisfaction, they should recruit professional and skillful coaches to create unforgettable memories for tourists at the flight sites.

Storytelling has become an important tool for promoting adventure destinations and inspiring return visits. Visitors often share their experiences with various networks, enabling DMOs to utilize customer stories effectively. Encouraging users to create and share inspiring content among their circles can enhance destination promotion strategies. This is not without challenge as DMOs know that destination brands increasingly include tourist experiences and conversation on social media (Delgado-Ballester & Fernández-Sabiote, 2016). One potential challenge is ensuring storytelling message consistency to maintain coherent narratives that align with the brand image of a destination (Castañeda-García et al., 2020). Crafting storytelling for diverse audiences poses challenges due to varying preferences, values, and interests. However, narratives derived from adventurous tourism experiences can foster positive attitudes towards destinations, leading to satisfaction, loyalty, and recommendations. Hence, DMOs are advised to monitor visitor narratives closely to maintain consistent destination promotion.

Finally, the finding that storytelling exerts the highest contribution in predicting tourists' behavioral intentions carries significant practical implications for adventure tourism, particularly in activities like paragliding. For example, DMOs can create a platform for visitors to share their narratives in order to foster customer engagement and a sense of camaraderie among tourists (Ghaderi et al., 2023; Lund et al., 2018). This engagement not only enhances the visitor experience, but also cultivates a sense of loyalty and belonging, increasing the likelihood of repeat visits (Delgado-Ballester & Fernández-Sabiote, 2016). In addition, destination managers and tour operators should invest in strategies to capture and curate compelling stories from tourists in the form of video testimonials, written accounts, and user-generated content. Such content can be leveraged across marketing channels to enhance a destination's appeal. Overall, recognizing the paramount importance of storytelling in influencing tourists' behavioral intentions opens up a range of opportunities for enhancing the visitor experience, driving destination popularity, and ultimately contributing to the overall success of adventure tourism ventures.

Study limitations and future research

This study has limitations, one of which is that it focused on two specific destinations in Iran, limiting its generalizability. Future research should include a more diverse range of cases, encompassing other adventure tourism sites/activities, to broaden the participant pool and enhance understanding of research variables' relationships. Additionally, the research model centered on positive perceptions, including favorable attitudes, experiences, and evaluations. However, it would be advisable also to incorporate negative perceptions (negative perceptions involve unfavorable attitudes, experiences, or evaluations) in future studies. This holistic approach would likely yield more comprehensive and robust results. Also, the research model may not have accounted for all potential mediating variables (e.g., satisfaction, recollection and storytelling) that could influence the relationships studied. Future studies could explore a broader range of potential mediators such as the quality of experience, sense of control, or immersion.

Disclosure statement

The authors declare no conflicts of interest.

Reference

Ali, F., Ryu, K., & Hussain, K. (2016). Influence of Experiences on Memories, Satisfaction and Behavioral Intentions: A Study of Creative Tourism. *Journal of Travel and Tourism Marketing*, *33*(1), 85–100. https://doi.org/10.1080/10548408.2015.1038418

Andrade, M. S., Miller, D., & Westover, J. H. (2021). Job Satisfaction and Gender: A Global Comparison of Job Satisfaction in the Hospitality Industry. *Journal of Quality Assurance in Hospitality and Tourism*, 1–23. https://doi.org/10.1080/1528008X.2021.1911728

Ayazlar, R. A., & Yüksel, A. (2018). Flow experience in paragliding: Effects on experience and life satisfaction. *Tourism Analysis*, *23*(4), 461–473. https://doi.org/10.3727/108354218X15391984820396

Aykol, B., Aksatan, M., & İpek, İ. (2017). Flow within theatrical consumption: The relevance of authenticity. *Journal of Consumer Behaviour*, *16*(3), 254–264. https://doi.org/10.1002/cb.1625

Bassano, C., Barile, S., Piciocchi, P., Spohrer, J. C., Iandolo, F., & Fisk, R. (2019). Storytelling about places: Tourism marketing in the digital age. *Cities*, *87*, 10–20. https://doi.org/10.1016/j.cities.2018.12.025

Ben Youssef, K., Leicht, T., & Marongiu, L. (2019). Storytelling in the context of destination marketing: an analysis of conceptualisations and impact measurement. *Journal of Strategic Marketing*, *27*(8), 696–713. https://doi.org/10.1080/0965254X.2018.1464498

Bendall-Lyon, D., & Powers, T. L. (2004). The impact of structure and process attributes on satisfaction and behavioral intentions. *Journal of Services Marketing*, *18*(2), 114–121.

https://doi.org/10.1108/08876040410528719
Black, H. G., & Kelley, S. W. (2009). A storytelling perspective on online customer reviews reporting service failure and recovery. *Journal of Travel and Tourism Marketing*, *26*(2), 169–179. https://doi.org/10.1080/10548400902864768
Boudreau, P., Mackenzie, S. H., & Hodge, K. (2020). Flow states in adventure recreation: A systematic review and thematic synthesis. *Psychology of Sport and Exercise*, *46*, 101611.
Castañeda-García, J. A., Frías-Jamilena, D. M., Del Barrio-García, S., & Rodríguez-Molina, M. A. (2020). The effect of message consistency and destination-positioning brand strategy type on consumer-based destination brand equity. *Journal of Travel Research*, *59*(8), 1447-1463.
Cater, C., Albayrak, T., Caber, M., & Taylor, S. (2021). Flow, satisfaction and storytelling: a causal relationship? Evidence from scuba diving in Turkey. *Current Issues in Tourism*, *24*(12), 1749–1767. https://doi.org/10.1080/13683500.2020.1803221
Chen, C. F., & Chen, F. S. (2010). Experience quality, perceived value, satisfaction and behavioral intentions for heritage tourists. *Tourism Management*, *31*(1), 29–35. https://doi.org/10.1016/j.tourman.2009.02.008
Chen, C. F., & Tsai, D. C. (2007). How destination image and evaluative factors affect behavioral intentions? *Tourism Management*, *28*(4), 1115–1122. https://doi.org/10.1016/j.tourman.2006.07.007
Chin, W. W. (1998). Issues and opinion on structural equation modeling. In *MIS Quarterly: Management Information Systems*, 22 (1). https://doi.org/10.2307/249674
Cohen, J. (1988). Statistical power analysis for the behavioral sciences. Hillsdale, NJ: L. *Lawrence Earlbaum Associates*, *2*.
Csikszentmihalyi, M. (2000). Beyond boredom and anxiety. *CA, US: Jossey-Bass*.
Csikszentmihalyi, M., (1997). Finding Flow: the Psychology of Engagement with Everyday Life. Basic Books.
Csikszentmihalyi. (1975). Beyond boredom and anxiety San Francisco. *CA, US: Jossey-Bass*.
del Bosque, I. R., & San Martín, H. (2008). Tourist satisfaction a cognitive-affective model. *Annals of Tourism Research*, *35*(2), 551–573. https://doi.org/10.1016/j.annals.2008.02.006
Delgado-Ballester, E., & Fernández-Sabiote, E. (2016). "Once upon a brand": Storytelling practices by Spanish brands. *Spanish Journal of Marketing-ESIC*, *20*(2), 115–131.
deMatos, N. M. da S., Sá, E. S. de, & Duarte, P. A. de O. (2021). A review and extension of the flow experience concept. Insights and directions for Tourism research. *Tourism Management Perspectives*, *38*, 100802. https://doi.org/10.1016/j.tmp.2021.100802
Ellis, G. D., Freeman, P. A., Jamal, T., & Jiang, J. (2019). A theory of structured experience. *Annals of Leisure Research*, *22*(1), 97–118. https://doi.org/10.1080/11745398.2017.1312468
Erdfelder, E., FAul, F., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, *41*(4), 1149–1160. https://doi.org/10.3758/BRM.41.4.1149
Frochot, I., Elliot, S., & Kreziak, D. (2017). Digging deep into the experience – flow and immersion patterns in a mountain holiday. *International Journal of Culture, Tourism, and Hospitality Research*, *11*(1), 81–91. https://doi.org/10.1108/IJCTHR-09-2015-0115
Ghaderi, Z., Mahdavizadeh, M. J., Rajabi, M., & Hall, C. M. (2023). Does storytelling affect destination image, destination personality, and tourists' behavioural intention? *Anatolia*, 1–13. https://doi.org/10.1080/13032917.2023.2191250

Ghasemy, M., Teeroovengadum, V., Becker, J. M., & Ringle, C. M. (2020). This fast car can move faster: a review of PLS-SEM application in higher education research. *Higher Education, 80*(6), 1121–1152. https://doi.org/10.1007/s10734-020-00534-1

Golestan Ministry of Culture, Handicrafts and Tourism[MCHT]. (2023).Paraglading site of Alhadi-Ramyan. Retrived on 15 March 2023 fromhttps://golestan.mcth.ir/video/show.php?id=123

Gravili, S., & Rosato, P. (2015). Destination telling: An integrative framework for co-narration practices in tourism destinations. Papers presented at the t-Forum 2015 Global Conference – Tourism Intelligence in Action, Naples.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice, 19*(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202

Haworth, J., & Evans, S. (1995). Challenge, skill and positive subjective states in the daily life of a sample of YTS students. *Journal of Occupational and Organizational Psychology, 68*(2), 109–121.

Heo, J., Lee, Y., Pedersen, P. M., & McCormick, B. P. (2010). Flow experience in the daily lives of older adults: An analysis of the interaction between flow, individual differences, serious leisure, location, and social context. *Canadian Journal on Aging*, *29*(3), 411–423. https://doi.org/10.1017/S0714980810000395

Howison, S., Higgins-Desbiolles, F., & Sun, Z. (2017). Storytelling in tourism: Chinese visitors and Māori hosts in New Zealand. *Anatolia, 28*(3), 327–337. https://doi.org/10.1080/13032917.2017.1318296

Im, S., & Varma, S. (2018). Distorted time perception during flow as revealed by an attention-demanding cognitive task. *Creativity Research Journal, 30*(3), 295–304.

Irna.(2018). KuhKhalil Paraglyding Champpionship. Retrived on 8 March 2023 from https://www.irna.ir/news/82130731/25

Janowski, I., Gardiner, S., & Kwek, A. (2021). Dimensions of adventure tourism. *Tourism Management Perspectives*, *37*, 100776. https://doi.org/10.1016/j.tmp.2020.100776

Jeon, H. M., Yoo, S. R., & Kim, S. H. (2020). The relationships among experience, delight, and recollection for revisit intention in chocolate exposition. *Sustainability*, *12*(20), 8644.

Kang, J., Manthiou, A., Kim, I., & Hyun, S. S. (2016). Recollection of the Sea Cruise: The Role of Cruise Photos and Other Passengers on the Ship. *Journal of Travel and Tourism Marketing*, *33*(9), 1286–1308. https://doi.org/10.1080/10548408.2015.1117409

Karasakal, S., & Albayrak, T. (2022). How to create flow experience during travel: The role of destination attributes. *Journal of Vacation Marketing*, *28*(3), 303-318.

Kao, Y. F., Huang, L. S., & Wu, C. H. (2008). Effects of theatrical elements on experiential quality and loyalty intentions for theme parks. *Asia Pacific Journal of Tourism Research*, *13*(2), 163–174. https://doi.org/10.1080/10941660802048480

Kim, J. H. (2010). Determining the factors affecting the memorable nature of travel experiences. *Journal of Travel and Tourism Marketing, 27*(8), 780–796. https://doi.org/10.1080/10548408.2010.526897

Kim, J. H., & Youn, H. (2017). How to design and deliver stories about tourism destinations. *Journal of Travel Research, 56*(6), 808-820.

Kim, M. J., & Hall, C. M. (2020). What drives visitor economy crowdfunding? The effect of digital storytelling on unified theory of acceptance and use of technology. *Tourism Management Perspectives, 34*, 100638. https://doi.org/10.1016/j.tmp.2020.100638

Kim, M., & Thapa, B. (2018). Perceived value and flow experience: Application in a nature-based tourism context. *Journal of Destination Marketing and Management*, *8*, 373–384. https://doi.org/10.1016/j.jdmm.2017.08.002

Kim, S. H., Song, M. K., & Shim, C. (2020). Storytelling by medical tourism agents and its effect on trust and behavioral intention. *Journal of Travel and Tourism Marketing*, *37*(6), 679–694. https://doi.org/10.1080/10548408.2020.1795046

Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology*, *28*(4), 563–575.

Lee, C. H., & Wu, J. J. (2017). Consumer online flow experience The relationship between utilitarian and hedonic value, satisfaction and unplanned purchase. *Industrial Management and Data Systems*, *117*(10), 2452–2467. https://doi.org/10.1108/IMDS-11-2016-0500

Lee, C. K., Yoon, Y. S., & Lee, S. K. (2007). Investigating the relationships among perceived value, satisfaction, and recommendations: The case of the Korean DMZ. *Tourism Management*, *28*(1), 204–214. https://doi.org/10.1016/j.tourman.2005.12.017

https://doi.org/10.1080/16078055.2016.1143389

Li, C. H., & Liu, C. C. (2020). The effects of empathy and persuasion of storytelling via tourism micro-movies on travel willingness. *Asia Pacific Journal of Tourism Research*, *25*(4), 382–392. https://doi.org/10.1080/10941665.2020.1712443

Loureiro, S. M. C. (2014). The role of the rural tourism experience economy in place attachment and behavioral intentions. *International Journal of Hospitality Management*, *40*, 1–9. https://doi.org/10.1016/j.ijhm.2014.02.010

Lund, N. F., Cohen, S. A., & Scarles, C. (2018). The power of social media storytelling in destination branding. *Journal of destination marketing & management*, *8*, 271-280.

Lund, N. F., Scarles, C., & Cohen, S. A. (2020). The Brand Value Continuum: Countering Co-destruction of Destination Branding in Social Media through Storytelling. *Journal of Travel Research*, *59*(8), 1506–1521. https://doi.org/10.1177/0047287519887234

Manthiou, A., Kang, J., & Hyun, S. S. (2017). An integration of cognitive appraisal theory and script theory in the luxury cruise sector: the bridging role of recollection and storytelling. *Journal of Travel and Tourism Marketing*, *34*(8), 1071–1088. https://doi.org/10.1080/10548408.2016.1277575

Minazzi, R. (2015). Social media marketing in tourism and hospitality. Springer.

Mosing, M. A., Magnusson, P. K. E., Pedersen, N. L., Nakamura, J., Madison, G., & Ullén, F. (2012). Heritability of proneness for psychological flow experiences. *Personality and Individual Differences*, *53*(5), 699–704. https://doi.org/10.1016/j.paid.2012.05.035

Nakamura, J., & Csikszentmihalyi, M. (2009). Flow theory and research. *Handbook of Positive Psychology*, 195–206.

Ochsner, K. N. (2000). Are affective events richly recollected or simply familiar? The experience and process of recognizing feelings past. *Journal of Experimental Psychology: General*, *129*(2), 242–261. https://doi.org/10.1037/0096-3445.129.2.242

Pera, R. (2017). Empowering the new traveller: storytelling as a co-creative behaviour in tourism. *Current Issues in Tourism*, *20*(4), 331–338. https://doi.org/10.1080/13683500.2014.982520

Pomfret, G. (2006). Mountaineering adventure tourists: a conceptual framework for research. *Tourism Management*, *27*(1), 113–123.

Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J.-H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: guidelines for using PLSpredict.

European Journal of Marketing. 53 (11), 2322-2347. https://doi.org/10.1108/EJM-02-2019-0189

Satar, M.S., Rather, R.A., Cheema, S., Parrey, S.H., Ghaderi, Z. and Cain, L. (2023), "Transforming destination-based customer engagement to revisit intention through co-creation: findings from SEM and fsQCA", *Tourism Review*, ahead-of-print of-print. https://doi.org/10.1108/TR-10-2022-0489

Song, H. J., Lee, C. K., Park, J. A., Hwang, Y. H., & Reisinger, Y. (2015). The Influence of Tourist Experience on Perceived Value and Satisfaction with Temple Stays: The Experience Economy Theory. *Journal of Travel and Tourism Marketing*, *32*(4), 401–415. https://doi.org/10.1080/10548408.2014.898606

Statista.com (2022). Advanture tourism market size worldwide. Retervied on 5th March from https://www.statista.com/statistics/1172869/global-adventure-tourism-market-size/

Talarico, J. M., & Rubin, D. C. (2003). Confidence, not consistency, characterizes flashbulb memories. *Psychological Science*, *14*(5), 455–461. https://doi.org/10.1111/1467-9280.02453

Talebpour, M., Ghaderi, Z., Rajabi, M., Mosalanejad, M., & Sahebkaran, M. A. (2017). Service quality aspects and sports scientific conventions: An experience from Iran. *Journal of Convention and Event Tourism*, *18*(4). https://doi.org/10.1080/15470148.2017.1359805

Tasci, A. D. A., & Milman, A. (2019). Exploring experiential consumption dimensions in the theme park context. *Current Issues in Tourism*, *22*(7), 853–876. https://doi.org/10.1080/13683500.2017.1321623

Tian-Cole, S., & Cromption, J. L. (2003). A conceptualization of the relationships between service quality and visitor satisfaction, and their links to destination selection. *Leisure Studies*, *22*(1), 65–80. https://doi.org/10.1080/02614360306572

Triantafillidou, A., & Petala, Z. (2016). The Role Of Sea-Based Adventure Experiences In Tourists' Satisfaction and Behavioral Intentions. *Journal of Travel and Tourism Marketing*, *33*(sup1), S67–S87. https://doi.org/10.1080/10548408.2015.1008667

Triantafillidou, A., & Siomkos, G. (2013). Summer camping: An extraordinary, nostalgic, and interpersonal experience. *Journal of Vacation Marketing*, *19*(3), 197–208. https://doi.org/10.1177/1356766712463719

Tsaur, S. H., Yen, C. H., & Hsiao, S. L. (2013). Transcendent experience, flow and happiness for mountain climbers. *International Journal of Tourism Research*, *15*(4), 360–374. https://doi.org/10.1002/jtr.1881

Tung, V. W. S., & Ritchie, J. R. B. (2011). Investigating the memorable experiences of the senior travel market: An examination of the reminiscence bump. *Journal of Travel and Tourism Marketing*, *28*(3), 331–343. https://doi.org/10.1080/10548408.2011.563168

Ullén, F., de Manzano, Ö., Almeida, R., Magnusson, P. K. E., Pedersen, N. L., Nakamura, J., Csíkszentmihályi, M., & Madison, G. (2012). Proneness for psychological flow in everyday life: Associations with personality and intelligence. *Personality and Individual Differences*, *52*(2), 167–172. https://doi.org/10.1016/j.paid.2011.10.003

Waltz, C., & Bausell, R. B. (1983). edition 1. *Nursing Research: Design, Statistics and Computer Analysis. Philadelphia. FA Davis Co*.

Warshaw, P. R., & Davis, F. D. (1985). The accuracy of behavioral intention versus behavioral expectation for predicting behavioral goals. *Journal of Psychology: Interdisciplinary and Applied*, *119*(6), 599–602. https://doi.org/10.1080/00223980.1985.9915469

Waterman, A. S. (1993). Two Conceptions of Happiness: Contrasts of Personal Expressiveness

(Eudaimonia) and Hedonic Enjoyment. *Journal of Personality and Social Psychology*, *64*(4), 678–691. https://doi.org/10.1037/0022-3514.64.4.678

Wu, C. H. J., & Liang, R. Da. (2011). The relationship between white-water rafting experience formation and customer reaction: A flow theory perspective. *Tourism Management*, *32*(2), 317–325. https://doi.org/10.1016/j.tourman.2010.03.001

Wu, H. C., Cheng, C. C., & Ai, C. H. (2018). A study of experiential quality, experiential value, trust, corporate reputation, experiential satisfaction and behavioral intentions for cruise tourists: The case of Hong Kong. *Tourism Management*, *66*, 200–220. https://doi.org/10.1016/j.tourman.2017.12.011

Zhong, Y. Y. (Susan), Busser, J., & Baloglu, S. (2017). A model of memorable tourism experience: The effects on satisfaction, affective commitment, and storytelling. *Tourism Analysis*, *22*(2), 201–217. https://doi.org/10.3727/108354217X14888192562366

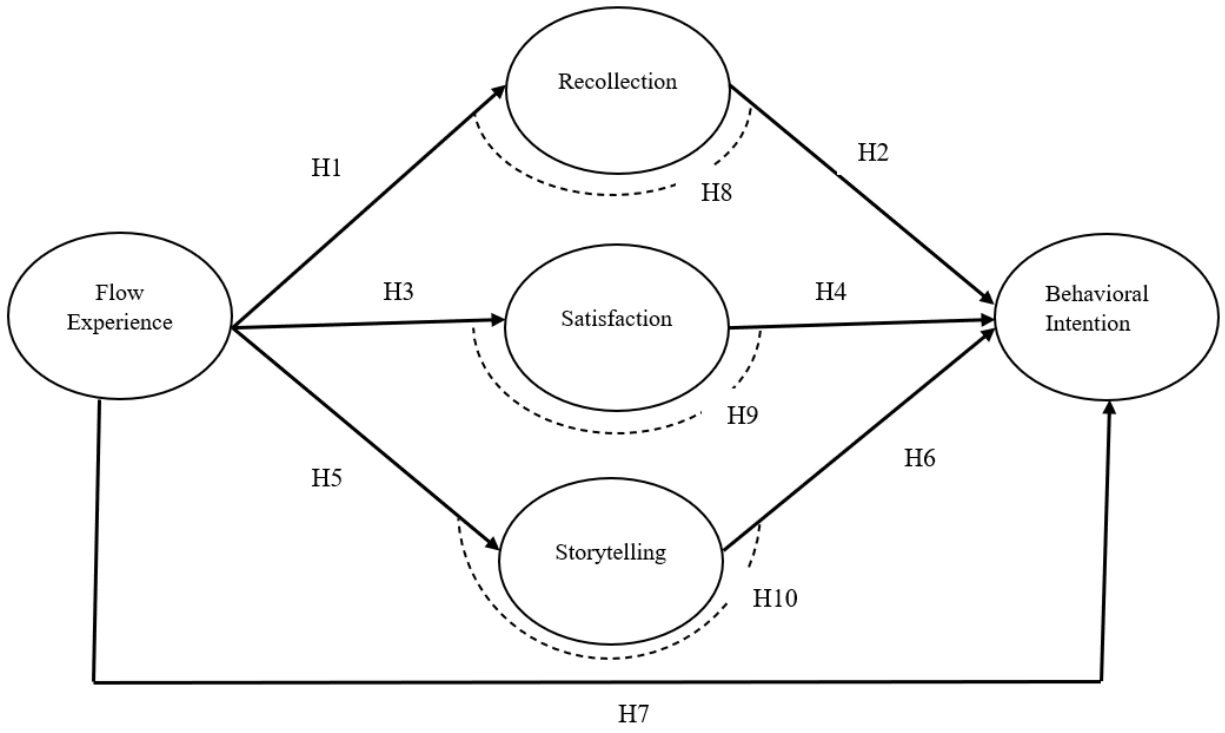

Figure 1. Research model.

Table 1. Measurement statistics of the constructs

	Construct/ Item	Loading	t-value	Mean (SD)	CA	rho_A	CR	AVE
Flow Experience	**Control**			3.68(0.63)	0.73	0.742	0.847	0.649
	I felt completely in control while flying.	0.743	13.88	3.36(0.79)				
	When flying, I felt everything was under control.	0.832	30.82	3.72(0.76)				
	Flight site equipment helped me control everything.	0.839	39.31	3.94(0.82)				
	Focus Attention			3.78(0.59)	0.816	0.828	0.892	0.735
	I did not think of anything else while flying.	0.920	75.53	378(0.64)				
	I was focusing entirely on the flight.	0.755	16.87	3.88(0.73)				
	I was utterly absorbed in the flight.	0.887	50.99	3.68(0.69)				
	Time Distortion			3.73(0.59)	0.822	0.825	0.894	0.737
	Flight time seemed to pass quickly.	0.837	30.49	3.69(0.71)				
	When flying I wished time would not pass.	0.882	45.06	3.74(0.67)				
	I saw different views from the top of the sky and felt time passing quickly.	0.856	35.14	3.74(0.69)				
Recollection				3.41(0.67)	0.802	0.804	0.884	0.717
When I remember this flight, I feel like I am experiencing the direct experience of this flight.		0.846	34.09	3.41(0.77)				
I can recall this flight from the moment I became aware of its occurrence.		0.871	39.90	3.45(0.77)				
As I remember the experience of this flight, I feel like I am travelling to that time.		0.823	25.77	3.41(0.77)				
Satisfaction				3.43(0.62)	0.783	0.795	0.873	0.696
I am satisfied with the flight experience.		0.831	32.90	3.59(0.70)				
I am satisfied with my expectations of the flight experience.		0.804	22.92	3.29(0.72)				
When I think about the time and effort I have put in, I am satisfied with the flight.		0.867	41.14	3.41(0.80)				
Storytelling				4.26(0.61)	0.861	0.862	0.906	0.707
I will post the photos of this leisure trip online		0.888	72.05	4.30(0.69)				
I will share my experience with others about this fun trip by telling the story.		0.861	33.07	4.49(0.70)				
I tell my friends and relatives the story of this flight.		0.782	21.97	4.05(0.80)				
I show the photos of this fun trip to others.		0.829	33.57	4.20(0.76)				
Behavioral Intentions				3.74(0.68)	0.817	0.826	0.892	0.735
l recommend visiting this flight site to others.		0.871	39.35	3.86(0.82)				
I say positive things to others about this flight site.		0.915	81.01	3.84(0.79)				
I will revisit this flight site in the future.		0.781	21.93	3.51(0.78)				

NOTE: CR: Composite reliability; CA: Cronbach's Alpha; AVE: Average variance extracted; T Value≥2.58

Table 2. Discriminant Validity based on the HTMT0.85 criterion.

Construct	C	FA	TD	RC	SF	ST	BI
C							
FA	0.574						
TD	0.481	0.729					
RC	0.335	0.398	0.421				
SF	0.306	0.445	0.368	0.183			
ST	0.459	0.359	0.331	0.368	0.354		
BI	0.461	0.418	0.402	0.412	0.393	0.617	

Note. C= Control; FA= Focus Attention; TD= Time Distortion; RC= Recollection; SF= Satisfaction; ST= Storytelling; BI= Behavioral Intentions

Table 3. Structural model results

Hypothesis	Path Coefficient	T Statistics	P Values	Support
H1: Flow Experience ---> Recollection	0.386	6.57	0.00	yes
H2: Recollection ---> Behavioral Intentions	0.131	2.761	0.006	yes
H3: Flow Experience ---> Satisfaction	0.376	7.133	.000	yes
H4: Satisfaction ---> Behavioral Intentions	0.117	2.523	0.012*	yes
H5: Flow Experience ---> Storytelling	0.386	5.728	.000	yes
H6: Storytelling ---> Behavioral Intentions	0.367	5.861	.000	yes
H7: Flow Experience ---> Behavioral Intentions	0.192	3.429	0.001	yes
H8: Flow Experience -> Recollection -> Behavioral Intentions	0.051	2.768	0.006	yes
H9: Flow Experience -> Satisfaction -> Behavioral Intentions	0.044	2.29	0.022*	yes
H10: Flow Experience -> Storytelling -> Behavioral Intentions	0.142	3.455	0.001	yes

Note. Bootstrapping based on n=10,000 subsamples; *Sig ≤0.05