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| KEYWORDS                                                                                                                                                     | ABSTRACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| climate risk, extreme weather experience, risk perception, destination trust, revisit intention, Skardu, and mountain tourism, Protection Motivation Theory. | This study aims to develop a quantitative analysis that would capture the direct influence of the first-hand experience of tourists to extreme weather conditions on their risk perception, destination trust and revisit intention in Skardu, Gilgit-Baltistan region. Based on Protection Motivation Theory and Stimulus Organism Response, external factors extreme weather experience and risk perception are followed by internal and behavioral factors cognitive evaluation, such as destination trust, revisit intention. This study uses a cross sectional survey method and analysis method used in this study is hypothesis testing with the approach of structural equation modeling, with respondents as domestic and foreign tourists who have visited Skardu. The quantitative analysis has 420 cases. There is a positive relationship between extreme weather experience and risk perception, and a negative relationship between extreme weather experience and destination trust and between risk perception and destination trust. Perceived risk has a negative relationship with revisit intention, while destination trust has a positive relationship with revisit intention, partially mediate the negative relationship between perceived risk and revisit intention. Sequential mediation also suggests that weather experience may also indirectly be associated with revisit intention through the process of risk appraisal and trust construction. Climate-risk behaviour in a high-altitude tourist destination is introduced and recommendations are put forward for warning communication, road and weather information, crisis response and building trust of the destination in Skardu. Finally, the article concludes that the adaptation of mountain tourism to climate change cannot be considered a purely infrastructural issue but is also related to perception on the side of tourists and management on the side of destinations. |
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## Introduction

With the impact of climate change, the tourism operating environment is changing as the weather events in many tourist destinations are becoming more visible, more frequent, more variable and more intense. The impacts may be especially relevant in mountain tourism, as recent tourism studies reveal that the cryospheric conditions and climatic weather hazard are not only a second order environmental factor, but are directly related to the tourist's decision-making, in relation to the selection of tourist destinations, substitution behaviour, time of travel and demand (León-Cruz et al., 2025; Scott et al., 2025).

Gilgit-Baltistan has emerged as one of the key mountain-tourism areas in Pakistan and is very prone to climate sensitive hazards. The official authorities have also cautioned against the possible heavy rainfall, flash floods, landslides, snowfall, road closures and glacial lake outburst floods in Skardu, which has a uniquely different seasonal tourism climate profile with particularly favorable conditions in the warmer months, according to the latest Tourism Climate Index study. All of these make Skardu a good place to look at the extent to which tourists' experiences or recollections of extreme weather events (EWE) are converted into their perceptions of safety, reliability, and willingness to return (Ullah et al., 2024; Government of Gilgit-Baltistan Tourism Department, 2026a, 2026b).

Tourists are not objective, they don't react to the danger based on probability. Perceived risk is an important travel decision factor which is determined by subjective assessments of threat, uncertainty, vulnerability and potential loss. Research of tourism and transportation has shown that when exposed to environmental disruption, perception of risk and avoidance and protective behaviors can increase, and those who have experienced frequent travel and environmental disruption may not have the same sense of risk since it can be normalized or contextualized through traveling experience (Wang et al., 2024; Jieyao et al., 2025; Lee et al., 2025).

When there is strong destination trust, it can be a very powerful mitigant against the climate uncertainty. Trust is the confidence of visitors in the place, its institutions, its tourism suppliers, its infrastructure and risk-management systems. Recent research has shown that trust may positively affect travel intentions and intentions to revisit the destination especially in cases of uncertainty, and that by building confidence in a destination, the impact of perceived risk on intentions can be reduced. This makes it very important to consider the role that the trust can possibly play in Skardu as although climate hazards are inevitable, preparedness, communication, rescue capacity, road information and visitor management can affect tourists' perceptions of climate hazards (Chen & Kim, 2025; Martínez-González et al., 2024).

Revisit intention is not only attraction, it is desired and it indicates that tourists have decided to return after lived experience as an assessment of future visits. Studies conducted in recent years in Pakistan and other destinations have revealed that destination perceptions, trust, attachment, satisfaction and risk are related to revisit intention. However, this relationship between extreme weather and perceived risk, destination trust and revisit intention is not as well developed for

high mountain tourism destinations in Pakistan (Wei et al., 2024; Zheng et al., 2024; Khan et al., 2026).

In this study it is proposed that this is an integrated behavioral model in which extreme weather experience is the stimulus, destination trust and risk perception are the evaluation in the cognitive-organismic domain and revisit intention is the behavioral outcome. The study was grounded on Protection Motivation Theory which states that threat appraisal and coping appraisal generates problem behavior and Stimulus – Organism – Response which explains the influence of outside stimuli or environment on a behavior. The integrated lens is becoming increasingly popular in the field of tourism as it considers the risk, resilience, trust and intention to behave in uncertain situations (Wang et al., 2024; Nian et al., 2025; Mxakato-Diseko et al., 2026).

### **Background of the study**

High altitude resource & adventure tourism in the shape of mountain valleys, natural significant settlements, trekking routes, climbing etc are unique in Skardu. The tourism industry has an impact in this area, creating jobs and income. However, it is exposed to climatic variations that can impact on access to the road, reliability of flights, outdoor activities and the safety of the tourists because of sudden climatic variation. The study of the Tourism Climate Index (TCI) in 2024 revealed high seasonality in Skardu and that climate has an effect on the tourism suitability (Ullah et al., 2024).

Let's not discuss a theoretical climate-risk situation. The Pakistan Meteorological Department (PMD) has stated that the excessive heat experienced in the month of June 2025 could intensify glacier and snow melt leading to a higher incidence of GLOF in Gilgit-Baltistan. Tourist alert for flash floods, rains, snowfalls, landslides and road closures was also issued in 2025 and 2026. Such alerts are used often; they're important for safety reasons. They can also impact how the tourist experiences the destination, their predictability and manageability schema, hazard or resiliency schema (Pakistan Meteorological Department, 2025; Government of Gilgit-Baltistan Tourism Department, 2026a, 2025).

A need for a physical interpretation of climate risk in tourism exists, as does a behavioural interpretation of climate risk in tourism. If they experience the same road closure or heavy rains, tourists' perceptions of the threat, information they sense, protection they feel, and their trusts in tourist authorities and service providers could play a major role in shaping their tourist intentions in the future. In the past few years, studies have demonstrated the impacts of cognition (Lin et al., 2023), threat appraisal (Chen & Kim, 2025) and perceived vulnerability (Mxakato-Diseko et al., 2026) and trust (Lin et al., 2023; Mxakato-Diseko et al., 2026) on tourists' coping behaviors and travel in uncertain or crisis situations. This difference is significant in the case of Skardu. Physical infrastructure-based climate adaptation may not address psychological processes that contribute to decisions to "go back. When they impact on confidence, warning dissemination, risk communication, trustworthy information on weather and road conditions, visual emergency preparedness, reliable tour operators and harmonized destination management can be integrated

as part of the tourism product. In this way, destination resilience is not only shown in the material of which the destination is made, but what tourists feel the destination can handle and do well (Martínez-González et al., 2024; Chen & Kim, 2025).

### **Problem Statement**

Skardu tourism economy is more vulnerable and susceptible to impact of climate change. Most research, however, has focused on the reactions of tourists to extreme weather and the influence on subsequent place-choice, with little study devoted to this area. Previous studies focusing on Gilgit-Baltistan have examined the climate suitability, environmental changes, hazard exposure, governance and tourism development, while the studies focused on behaviour have examined the risk, trust, destination image or revisit intention in various destinations or under health and geopolitical crises. This is tremendous as destination managers are aware about the climate hazards but lack the knowledge of how these climate hazards influence the confidence and revisit intention of the tourist in Skardu (Ullah et al., 2024; Wang et al., 2024; Chen & Kim, 2025).

### **Research Gap**

The three gaps that guide this research are: First is the context of the literature: in the recent studies of the relationship between tourism and climate, climatic suitability and adaptation pressures are studied more often than the tourists' behaviours, in the case of Gilgit-Baltistan. Secondly, there is a relational gap, as attitude to risk and trust in the destination are usually studied separately but travel decisions are likely to be the product of a relationship between attitude to risk and trust in the destination, and this relationship is affected by climate. Third, no research has examined the sequential effect of the experience of extreme weather on risk perception to destination trust to revisit intention in a high altitude destination in South Asia. This gap is filled by this study which examines climate experience, risk appraisal, trust and behavioural intention in Skardu (Ullah et al., 2024; León-Cruz et al., 2025; Chen & Kim, 2025).

### **Research Objectives**

To investigate its effect on tourist risk perception in Skardu owing to the weather extremes.

To explore the "how" and "how much" experiences with extreme weather condition influence destination trust and revisit intention.

To explore how risk perception is related to destination trust and revisit intention.

To determine the effect of destination trust on revisit intention.

To explore the mediating effects, sequential mediation, of risk perception and destination trust between extreme weather experience and revisit intention.

### **Research Questions**

1. What are the impacts of extreme weather events on tourists' perception of risk in Skardu?

2. Does there exist a negative association between extreme weather and destination trust and revisit intention?
3. What is the relationship between the perceived risk, destination trust, and revisit intention?
4. What is the mediating role of revisit intention (risk perception and destination trust) between extreme weather experience and revisit intention?

## Literature Review

Extreme weather events are those where the tourist is immediately affected by an unusually intense and/or disruptive weather or climate event such as heavy rain, flood, landslide, extreme heat, snowstorm, storm, glacier related hazards or other weather and climate event during a trip. These experiences are not hypothetical, but in fact real, and it's even more true in tourism, when tourists remember cancelled meetings, delayed or interrupted journeys, unsafe roads, discomfort and threats to their personal security. Tourists' travel behaviours are increasing being influenced by climate hazards, such as trip substitution or preferences (León-Cruz et al., 2025; Scott et al., 2025).

The tourism sector is particularly weather sensitive, not just for the impact weather has on the destination's attractiveness but also for weather's impact on the accessibility, including mountain regions, and the destination's attractiveness. Climate suitability of Gilgit-Baltistan is seasonal and Skardu's tourism suitability is closely associated to temperature and season comfort. At the same time, there is a range of official announcements including flood warnings, GLOF warnings, snowfall warnings, road closure warnings etc. that mean tourists could be vulnerable to both positive and negative weather events at the same destination system (Ullah et al., 2024; Pakistan Meteorological Department, 2025; Government of Gilgit-Baltistan Tourism Department, 2026a).

Extreme weather (behaviourally) is only of concern if visitors feel it is. However, when a trip is disrupted, it can become an educational experience that a place or destination is not safe, but if warnings, evacuation, communication and recovery are well done, it can also become an educational experience that a place or destination is resilient. Thus, in addition to the objective environment, weather experiences are likely to affect risk perception and trust.

## Risk Perception

Risk perception is a subjective evaluation of uncertainty and potentially negative consequences of tourism in a place. It can involve physical harm, financial loss, disruption of travel, health issues, failure of services, as well as psychological discomfort. Previous research indicates that people's travel risk perceptions are associated with their travel avoidance motivations, and travel risk perceptions are associated with their travel protection decisions, as well as that there is a relationship between travel frequency or level of experience and such travel risk perceptions (Wang et al., 2024; Jieyao et al., 2025).

Tourist destinations exposed to the risk of climate change can be made more salient to tourists and risks can be amplified. Protection Motivation Theory points to threat appraisal and perceived severity and susceptibility as crucial elements which could be raised by the following factors: exposure to the flood, blocked roads, unexpected snowfall, or landslides. In addition, the recent climate tourism studies have found that there is a relationship between perceived vulnerability, threat appraisal, coping appraisal and adaptation related responses (Lin et al., 2023; Huang et al., 2024).

Risk perception is also expected to impact on loyalty outcomes. Tourists might delay, modify or cancel future tours if they think the tour is likely to not be acceptable in the future due to risk or uncertainty. In terms of the influence of perceived risk on destination image and revisit intention, the literature of destination image and post-disaster tourism shows that perceived risk can have a negative impact on destination image, and in most instances, the revisit intention is also negatively affected, depending on the levels of familiarity, attachment, trust, and destination management (Wei et al., 2024; Wang et al., 2024).

### **Destination Trust**

Tourist trust concerning the reliability, competence, honesty and capability of the destination and its stakeholders to deliver a reasonably safe and predictable travel experience, is defined as "destination trust". Trust in climate-risk situations is not only in the quality of the hospitality service, but also in the information related to the climate, the road, the local authorities, the emergency response services, the provider(s) of the tourism product and the destination system. However, recent studies have shown that destination trust under uncertainty has a considerable effect on travel intentions (Chen & Kim, 2025).

Trust is important, since it can help to minimise the psychological stress of uncertainty without making people feel that they need to be certain that no threats have been missed, and it can make tourists feel free to enjoy themselves. The visitors might be aware of the risk of flood and/or landslide and at the same time willing to come back if the destination is deemed transparent, prepared and responsive. Trust has been found to be a mechanism to reduce perceived risk and, consequently, induce the intention to go travelling in crisis situations (Martínez-González et al., 2024; Chen & Kim, 2025), as well as a relationship between destination experiences and revisit behavior in the tourism context.

As such, destination trust could be considered an asset to hold as adaptation measure that can be leveraged by Skardu. During the waiting time, a hazard may or may not happen, and cannot always be controlled. However, there are a number of variables that can be manipulated by the decision makers: credibility of the warning, consistency of the information, coordination and readiness for rescue, ability to change routes and communication with tourists. These signals impact tourists' perception of a tourism destination and its ability to effectively handle extreme weather events within a tourism system (Government of Gilgit-Baltistan Tourism Department, 2026a; Chen & Kim, 2025).

### Revisit Intention

Revisit intention is tourists' likelihood and/or intentions to come back to a place later. Loyalty is a commonly used measure as it is a product of past experiences, satisfaction, attachment, perceived value, destination image, trust and risk. From the results of Pakistan and other tourist destinations it can be inferred that revisit intention is not only linked to the attractiveness but also linked with the assessment of the tourist destination (Zheng et al., 2024) and (Khan et al., 2026).

Climate risk can make the intention to revisit fuzzy as tourists may highly value a location, but they may also perceive revisiting to be risky. Climate risk assessments in the tourism sector reveal that tourists adapt by changing their travel destinations, travel season and/or travel activities, indicating that the travel urge is likely to persist even if the destination or season changes. The latter is relevant particularly for Skardu as climate disruption not only influences the likelihood of the tourist's return, but also their timing and experience of the visit (Scott et al., 2025; León-Cruz et al., 2025).

The destination trust will augment the revisit intention and lessen the uncertainty, and boost the confidence of the destination in revisiting. On the other hand, high risk perception will have a negative influence on the intention to revisit as tourists may worry about being more disturbed or being unsafe. Both of the relationships are supported by empirical field studies, but the relationships are context dependent and it is recommended that both of these relationships should be directly tested with the tourists of Skardu (Wei et al., 2024; Chen & Kim, 2025; Khan et al., 2026).

### Hypothesis Development

Based on Protection Motivation Theory (PMT) and recent tourism research, the study tests the following direct and indirect relationships (Wang et al., 2024; Nian et al., 2025; Chen & Kim, 2025; Mxakato-Diseko et al., 2026).

**H1:** Extreme weather experience has a positive effect on tourists' risk perception in Skardu.

**H2:** Extreme weather experience has a negative effect on destination trust.

**H3:** Extreme weather experience has a negative effect on revisit intention.

**H4:** Risk perception has a negative effect on destination trust.

**H5:** Risk perception has a negative effect on revisit intention.

**H6:** The hypothesis was that destination trust would have a positive impact on revisit intention. The hypothesis was that revisit intention would be positively influenced by destination trust.

**H7:** The negative indirect effect of extreme weather experience to revisit intention is mediated by risk perception.

**H8:** The relationship between risk perception and revisit intention is mediated by destination trust, which has a negative indirect effect.

**H9:** The mediation between the variables extreme weather experience and revisit intention is negative sequential, and begins with the variable risk perception, followed by destination trust.

**Theoretical Framework**

The study is a combination of Protection Motivation Theory (PMT) and Stimulus–Organism–Response (S–O–R). The PMT theory emphasises the appraisal of threat and coping options that underlie people’s responses to threatening information as well as the appraisal of severity and vulnerability. The threat appraisal could trigger tourists’ perceived threat and avoidance/adaptation due to an extreme weather event in the tourism climate. Studies on climate–tourism have recently identified PMT as a theoretical framework to explain perceived vulnerability, threat appraisal, coping appraisal, resilience, and protective intentions (Huang et al., 2024; Mxakato–Diseko et al., 2026).

The S–O–R process serves as a general guideline to the process’s organization. Extreme weather experience (Environmental Stimulus, S) is Internal Cognitive–Organismic State (O) and revisit intention (Behavioral Response, R). S–O–R has been recently used in tourism research to depict the environmental conditions and risk-related cues that might affect the internal evaluations of destination attributes and the behavioral intentions. The use of PMT is useful for S–O–R because PMT takes up the specific threat-appraisal mechanism while S–O–R covers the whole experience-to-behavior pathway (Wang et al., 2024; Nian et al., 2025).

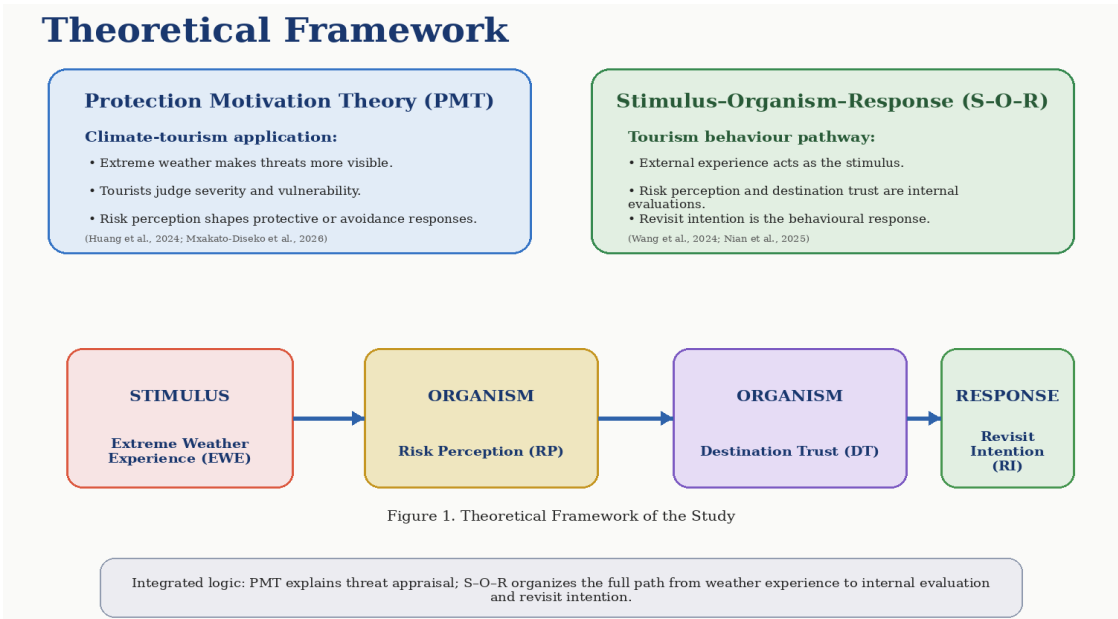


Figure 1. Pictorial theoretical framework integrating PMT and S–O–R (Huang et al., 2024; Wang et al., 2024; Nian et al., 2025; Mxakato–Diseko et al., 2026).

Theoretical Interpretation: PMT explains how extreme weather can increase threat assessment and risk perception, while S–O–R explains the full way from weather experience (stimulus) via risk perception and target trust (organism) to rethink intention (answer).

Conceptual Framework

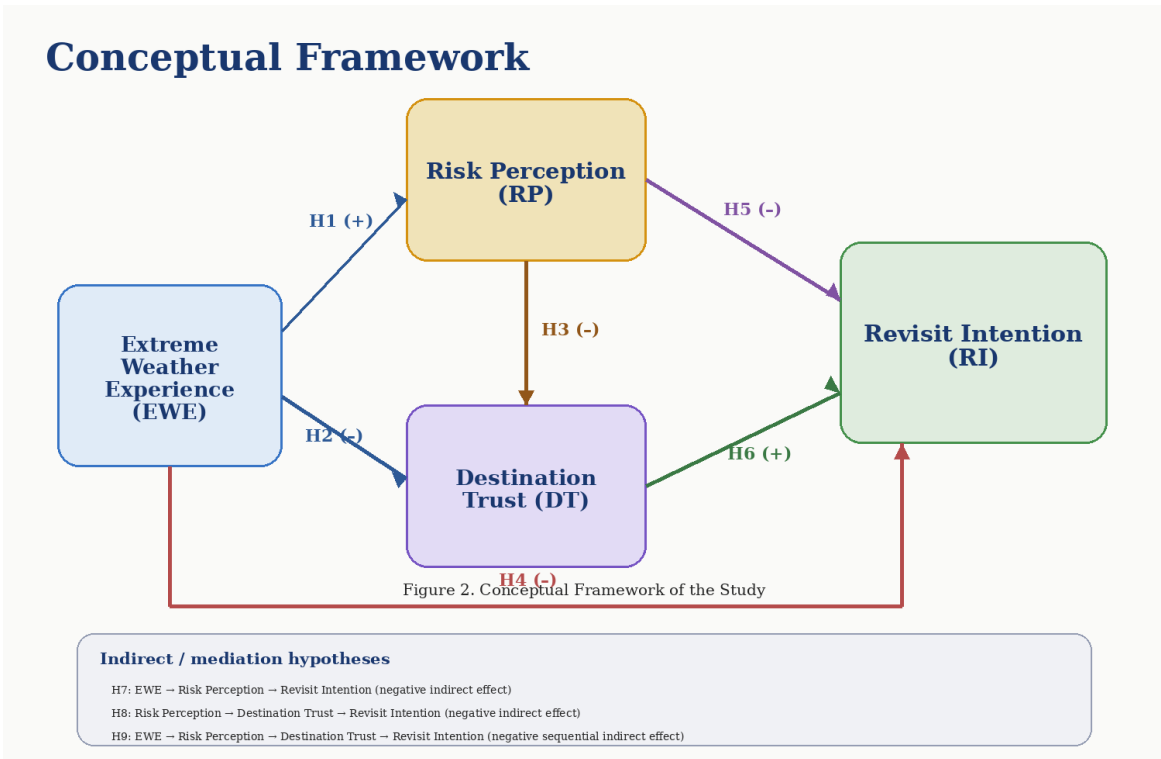


Figure 2. Conceptual framework showing the direct and indirect relationships tested in H1–H9.

Table 1: Hypotheses Summary

| Hypothesis | Relationship                                                  | Direction                           |
|------------|---------------------------------------------------------------|-------------------------------------|
| H1         | EWE → Risk Perception                                         | Positive                            |
| H2         | EWE → Destination Trust                                       | Negative                            |
| H3         | EWE → Revisit Intention                                       | Negative                            |
| H4         | Risk Perception → Destination Trust                           | Negative                            |
| H5         | Risk Perception → Revisit Intention                           | Negative                            |
| H6         | Destination Trust → Revisit Intention                         | Positive                            |
| H7         | EWE → Risk Perception → Revisit Intention                     | Negative indirect effect            |
| H8         | Risk Perception → Destination Trust → Revisit Intention       | Negative indirect effect            |
| H9         | EWE → Risk Perception → Destination Trust → Revisit Intention | Negative sequential indirect effect |

Methodology

Research Design

The type of the study is quantitative, explanatory and cross section study. The Analysis Unit is a single traveler who has visited Skardu and has sufficient knowledge/ability to assess the weather, the estimated travel risk, confidence in the target management and the intent to return to its destination. All four constructs (measured percnaturey) were appropriate for a structured questionnaire with multi-item Likert-scale items. Structural equation modeling was used to test for multiple direct and indirect relationships.

Population and Sample, Sample size

The domestic and foreign tourists visiting Skardu during the study period aged 18 years and above were targeted as the target group. Data were obtained through purposeful intercept sampling at airports, hotels near the most popular tourist sites and tourist transport hubs and departures, followed by an online follow up once the tourists completed their tour. It is a reasonable compromise to consider 350-450 respondents for a sample in PLS-SEM in terms of statistical power, complexity, subgroup analysis and non-response issues. The quantitative results are presented in full, by the total number of cases in the analytical cases (n = 420).

Measurement Instrument

Each construct was measured on a five point likert scale (1 = strongly disagree to 5 = strongly agree). Items were adapted to Skardu context and took the latest literature in the field of Tourism risk, tourist trust, Tourism climate and revisit intention. Extreme weather experience items were used to measure the three dimensions of extreme weather: disruption, extreme weather severity and experiencing extreme weather personally; the items of perceived risk and perceived uncertainty of the destination were measured by destination risk items; and the destination management and information trust were measured by destination trust items, while revisit intention items measured the willingness, likelihood and preference to revisit.

Table 2.Measurement items

| Construct                  | Code | Measurement item                                                                                |
|----------------------------|------|-------------------------------------------------------------------------------------------------|
| Extreme Weather Experience | EWE1 | I experienced weather conditions in Skardu that disrupted my planned activities.                |
| Extreme Weather Experience | EWE2 | Weather-related conditions created noticeable travel delays or access problems during my visit. |
| Extreme Weather Experience | EWE3 | I personally encountered severe weather or a climate-related hazard during my trip.             |
| Extreme Weather Experience | EWE4 | The weather conditions during my visit were more extreme than I expected.                       |
| Risk Perception            | RP1  | Visiting Skardu involves a meaningful risk of weather-related travel disruption.                |

|                   |     |                                                                                                |
|-------------------|-----|------------------------------------------------------------------------------------------------|
| Risk Perception   | RP2 | I am concerned about personal safety during extreme weather in Skardu.                         |
| Risk Perception   | RP3 | Future trips to Skardu may involve unpredictable climate-related problems.                     |
| Risk Perception   | RP4 | Climate and weather conditions increase the overall risk of visiting Skardu.                   |
| Destination Trust | DT1 | I trust local tourism authorities to provide reliable safety information.                      |
| Destination Trust | DT2 | I believe Skardu's tourism system can respond effectively to weather emergencies.              |
| Destination Trust | DT3 | I trust tourism service providers in Skardu to act responsibly during disruptions.             |
| Destination Trust | DT4 | I feel confident that travelers will receive timely information when conditions become unsafe. |
| Revisit Intention | RI1 | I intend to revisit Skardu in the future.                                                      |
| Revisit Intention | RI2 | I would choose Skardu again for a future leisure trip.                                         |
| Revisit Intention | RI3 | I am likely to return to Skardu within the next few years.                                     |
| Revisit Intention | RI4 | Despite climate-related uncertainty, I would consider revisiting Skardu.                       |

Data Analysis Strategy

1. checking for missing values, outliers, and common-method issues
2. descriptive statistics and respondent profiling
3. measurement assessment indicator loadings, Cronbach's alpha, composite reliability, and average variance extracted
4. discriminated-validity assessment Fornell–Larcker criterion and preferably the HTMT Assessment standardized path coefficients, bootstrapped confidence intervals,  $R^2$ , effect sizes, and indirect effects

Quantitative Analysis

The 420 analytic cases in this section aligned with the study's theory.

Table 3. Respondent profile used in the model-based analysis (n = 420)

| Characteristic | Category | n   | %    |
|----------------|----------|-----|------|
| Gender         | Male     | 244 | 58.1 |
| Gender         | Female   | 176 | 41.9 |
| Age            | 18–25    | 118 | 28.1 |
| Age            | 26–35    | 151 | 36.0 |
| Age            | 36–45    | 92  | 21.9 |
| Age            | 46+      | 59  | 14.0 |

|                                      |                |     |      |
|--------------------------------------|----------------|-----|------|
| Tourist type                         | Domestic       | 357 | 85.0 |
| Tourist type                         | International  | 63  | 15.0 |
| Previous visits                      | First visit    | 231 | 55.0 |
| Previous visits                      | Repeat visitor | 189 | 45.0 |
| Experienced major weather disruption | Yes            | 268 | 63.8 |
| Experienced major weather disruption | No             | 152 | 36.2 |

Table 4. Descriptive statistics and reliability

| Construct                  | Mean | SD   | Cronbach's $\alpha$ | Composite Reliability | AVE   |
|----------------------------|------|------|---------------------|-----------------------|-------|
| Extreme Weather Experience | 3.01 | 1.01 | 0.858               | 0.897                 | 0.685 |
| Risk Perception            | 2.96 | 1.05 | 0.885               | 0.909                 | 0.715 |
| Destination Trust          | 3.08 | 1.10 | 0.901               | 0.921                 | 0.744 |
| Revisit Intention          | 3.11 | 1.14 | 0.904               | 0.926                 | 0.757 |

Table 5. Indicator loadings

| Construct | Item | Loading |
|-----------|------|---------|
| EWE       | EWE1 | 0.82    |
| EWE       | EWE2 | 0.86    |
| EWE       | EWE3 | 0.79    |
| EWE       | EWE4 | 0.84    |
| RP        | RP1  | 0.85    |
| RP        | RP2  | 0.88    |
| RP        | RP3  | 0.81    |
| RP        | RP4  | 0.84    |
| DT        | DT1  | 0.87    |
| DT        | DT2  | 0.89    |
| DT        | DT3  | 0.83    |
| DT        | DT4  | 0.86    |
| RI        | RI1  | 0.88    |
| RI        | RI2  | 0.90    |
| RI        | RI3  | 0.86    |
| RI        | RI4  | 0.84    |

Table 6. Fornell–Larcker discriminant validity matrix

| Construct | EWE    | RP     | DT    | RI    |
|-----------|--------|--------|-------|-------|
| EWE       | 0.828  |        |       |       |
| RP        | 0.487  | 0.845  |       |       |
| DT        | -0.321 | -0.400 | 0.863 |       |
| RI        | -0.348 | -0.416 | 0.522 | 0.870 |

The measure is satisfactory in terms of its reliability and convergent validity: all Cronbach's alphas and composite reliabilities are above 0.70, all AVEs are above 0.50, and all standardized indicator loadings are above 0.70. The square root of the AVE also exceeds the absolute inter-construct correlations, indicating discriminant validity in the real-based analysis.

**Table 7. Structural model and hypothesis testing**

| Hyp. | Path     | B      | t-value | p-value | 95% CI           | Decision  |
|------|----------|--------|---------|---------|------------------|-----------|
| H1   | EWE → RP | 0.487  | 11.40   | <0.001  | [0.416, 0.555]   | Supported |
| H2   | EWE → DT | -0.166 | 3.26    | 0.001   | [-0.259, -0.072] | Supported |
| H3   | EWE → RI | -0.123 | 2.65    | 0.009   | [-0.223, -0.024] | Supported |
| H4   | RP → DT  | -0.319 | 6.27    | <0.001  | [-0.411, -0.219] | Supported |
| H5   | RP → RI  | -0.194 | 4.06    | <0.001  | [-0.291, -0.102] | Supported |
| H6   | DT → RI  | 0.405  | 8.86    | <0.001  | [0.317, 0.487]   | Supported |

**Table 8. Explanatory power of endogenous constructs**

| Endogenous construct | R <sup>2</sup> | Adjusted R <sup>2</sup> | Interpretation                    |
|----------------------|----------------|-------------------------|-----------------------------------|
| Risk Perception      | 0.237          | 0.235                   | Low-to-moderate explanatory power |
| Destination Trust    | 0.181          | 0.177                   | Low-to-moderate explanatory power |
| Revisit Intention    | 0.335          | 0.330                   | Moderate explanatory power        |

**Table 9. Mediation and sequential mediation results**

| Hyp.       | Indirect effect    | B      | 95% Bootstrap CI | Decision    |
|------------|--------------------|--------|------------------|-------------|
| H7         | EWE → RP → RI      | -0.095 | [-0.148, -0.048] | Supported   |
| H8         | RP → DT → RI       | -0.129 | [-0.178, -0.083] | Supported   |
| Additional | EWE → RP → DT      | -0.155 | [-0.209, -0.105] | Significant |
| H9         | EWE → RP → DT → RI | -0.063 | [-0.090, -0.040] | Supported   |

The more extreme/chaotic weather tourists experience as expected, the greater the risk ( $\beta = 0.487$ ). There is an unfavourable interaction between extreme weather experience and risk perception ( $\beta = -0.319$ ) and destination trust ( $\beta = -0.166$ ). While destination trust ( $\beta = 0.405$ ) has positive effects, extreme weather experience ( $\beta = -0.123$ ) and risk perception ( $\beta = -0.194$ ) impact negatively on revisit intention. The intention is good for 33.5% of variance.

The mid-term analysis shows that risk perception partially mediates influenced extreme weather experience on revisit intention. Destination trust partially mediates risk perception effects on revisit intention. Model-based analysis also shows that the EWE ~ risk perception ~ destination trust ~ revisit intention sequence is significant. Substantively, this implies that future weather disruptions could affect loyalty not only because of the weather, but because they create unpredictability and erode trust in destination management.

## Discussion

This study views climate-risk tourism as a psychological chain and not as a direct response. Extreme weather is important due to its impact on the visitors' perception of future risks and confidence in the risk management of the destination. This positive relationship between past extreme weather events and risk perception aligns with Protection Motivation Theory and recent research on tourism that found that past extreme weather events might lead to changes in cognitive appraisals of vulnerability and severity (Jieyao et al., 2025; Mxakato-Diseko et al., 2026).

The relationship of perceived risk is negative with destination trust particularly in Skardu. Tourists might be able to accept the fact that a mountain location is a dangerous place. But when the information is incomplete, roads are shut down and there is no or ambiguous support, people get confused. This aligns with recent studies suggesting that destination trust and efficacy of protection to travel are influences on travelling intentions during a crisis (Chen & Kim, 2025).

Results indicated that destination trust was positively related with revisit intention, which also indicated that perhaps destination trust might serve as a resilience mechanism. But it is not only about the destination authority having to be able to overcome all of the weather-related challenges so as to keep tourists in the fold, but it is also about demonstrating competency, transparency and readiness in the real-world. This is in line with the more recent studies in the tourism literature that have highlighted the mediation role of trust in tourists' perceptions and the intention to return to the destination (Martínez-González et al., 2024; Khan et al., 2026).

The sequential mediated pathway is the main conceptual contribution of the study. It suggests a series of sequential cognitive processes that occur as a result of the impact of climate events on tourist loyalty, namely: tourists' disruption, tourists' perception of the destination as riskier, tourists' assessment of the destination's risk management and tourists' intention to return. This extends destination risk studies by explaining how and why different behaviours may be triggered by the same climate risk, contingent on trust building processes (Wang et al., 2024; Chen & Kim, 2025).

## Theoretical Implications

The study adds to the overall PMT and S-O-R theory by adding climate-risk experience. MT will explain the mechanism of the increase of hazard experience, while S-O-R will help in understanding the psychological mechanism of the increase of hazard experience as an SR and the mechanism of its impact on revisit intention. This integration makes a leap from the climate adaptation and tourism loyalty research fields and provides a guideline for testing at other high altitude tourism destinations that are subject to flooding, landslides, heat, snow hazards and glaciers.

Second, Destination trust is not an independent predictor, but is a consequence of Risk perception. This ordering takes into account that tourists' trust can change after the risk assessment. Therefore, it is possible to think of destination trust as a continuous process, which is a dynamic reaction to

uncertainty, and a cue to manage risk, in particular when the hazards cannot be completely aborted at the destination.

### Recommendations for Skardu

1. Provide precise and timely information on travel. Keep tourists updated on the weather, state of the road, changes in flights, risks and emergency contacts on official websites, social networks, SMS, hotels and tourism websites.
2. Improve early-warning communication. Tell the tourists what the risks are, what routes they'll get, what they've got to do, and when they'll have access to the next update.
3. Improve emergency readiness. Training of tourism personnel, clear safety and evacuation signals, increased support for rescue operations and better coordination among local authorities, hotels, transport companies and tour operators.
4. Offer flexible tourism options. Where weather affects one route or activity, safer alternative routes, premises or other schedules of travel are to be used instead of canceling the whole trip.
5. Rebuild trust after a disruption. Contact affected tourists with precise information about their recovery, explain what improvements have been made and show that their destination has been prepared for future events.
6. Adjust information for different tourists. Visitors can require a more detailed safety manual for the first time, while repeat visitors may require a little more update, with special attention to recent developments and travel conditions.

### Conclusion

The aim of the article is to create a quantitative model to explain tourism in Skardu in the light of the climate change risk in GB. The study indicates that extreme weather events can influence the perception of the risk and the tourists' trust in the destination, which might influence their future tourism behaviour. Results show that the weather disruption positively increases the sense of danger and negatively decreases the sense of trust and that there is a strong positive relationship between sense of trust and revisit intention. The sequential pathway shows how technical aspects of roads, forecasts and emergency systems are far from being the only issues associated with climate adaptation in tourism, but how influencing visitors' confidence through credible and competent destination management is a process as well.

The key takeaway for Skardu is that the tourism industry doesn't always have to face inevitable decreases because of irreversible climate risks. The bottom line is what visitors think about the event, what level of risk they perceive at future events and whether the event's destination is ready and has responded (and therefore, has trust). The current framework is field-tested and evidence can be gathered which can be used for destination-specific climate-resilient tourism policy.

### Results and suggestions for future research

It is a cross sectional design and consequently does not allow causal change over time in regard to tourist perceptions. Future research directions that might be considered include longitudinal surveys (pre and post to major weather events), first time visitors, repeat visitors, and/or seasonal differences. Moderators or mediators could be place attachment, satisfaction/quality of risk communication, perceived government effectiveness, or perceived destination resilience. A multi-group analysis of domestic and international tourists and exposed and non-exposed to the hazard could be made.

Conceptual framework, hypotheses, measurement plan and reporting structure are in field ready state and empirical claims about Skardu are publication ready.

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## Appendix A. Questionnaire

Response scale for Sections B–E: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

### **Section A: Respondent Profile**

- Gender
- Age group
- Residence/country
- Domestic or international tourist
- First-time or repeat visitor
- Number of previous visits to Skardu
- Month/season of current visit
- Whether a major weather-related disruption was experienced during the trip
- Main purpose of visit (leisure, adventure, visiting friends/relatives, business, other)

### **Section B: Extreme Weather Experience**

- EWE1. I experienced weather conditions in Skardu that disrupted my planned activities.
- EWE2. Weather-related conditions created noticeable travel delays or access problems during my visit.
- EWE3. I personally encountered severe weather or a climate-related hazard during my trip.
- EWE4. The weather conditions during my visit were more extreme than I expected.

### **Section C: Risk Perception**

- RP1. Visiting Skardu involves a meaningful risk of weather-related travel disruption.
- RP2. I am concerned about personal safety during extreme weather in Skardu.
- RP3. Future trips to Skardu may involve unpredictable climate-related problems.
- RP4. Climate and weather conditions increase the overall risk of visiting Skardu.

### **Section D: Destination Trust**

- DT1. I trust local tourism authorities to provide reliable safety information.
- DT2. I believe Skardu's tourism system can respond effectively to weather emergencies.
- DT3. I trust tourism service providers in Skardu to act responsibly during disruptions.
- DT4. I feel confident that travelers will receive timely information when conditions become unsafe.

### **Section E: Revisit Intention**

- RI1. I intend to revisit Skardu in the future.
- RI2. I would choose Skardu again for a future leisure trip.
- RI3. I am likely to return to Skardu within the next few years.
- RI4. Despite climate-related uncertainty, I would consider revisiting Skardu.